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**An Optimality Theoretic Analysis of Nicaraguan Spanish
Diminutivization: Results of a Field Survey**

Inés Miranda Miranda

A dissertation submitted in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy

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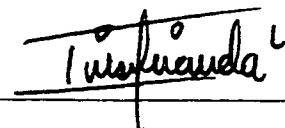
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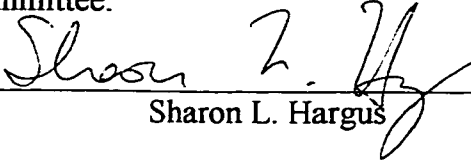
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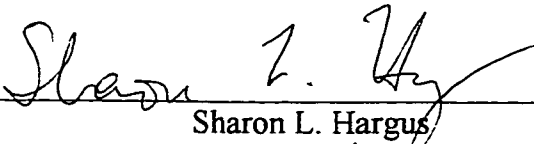
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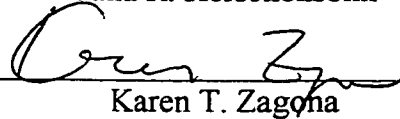
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Abstract

An Optimality Theoretic Analysis of Nicaraguan Spanish

Diminutivization: Results of a Field Survey

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The goals of the present investigation of diminutive formation in Nicaraguan Spanish were twofold: to collect a solid corpus of data defining a clear pattern of diminutive formation in terms of preference and variability, and to provide an analysis within Optimality Theory to account for the field data.

The collection of data was done with a survey carefully designed to allow for a ranking of possible diminutive options for each word, and to emphasize the categories of words defined as problematic based on previous literature. The survey was conducted in Nicaragua during August 1998. The total number of surveys was 95.

The results showed that diminutive allomorphy selection depends on three elements of the base: its size, the syllabic structure of its last syllable, and the characteristics of its final vowel. In addition, four categories of words showed variability in that more than one diminutive option was possible although there was a clear pattern of preference of diminutive forms.

I propose that diminutivization in Nicaraguan Spanish is an output to output correspondence process demanding the stem be minimally bimoraic (StemMin), and requiring the output to be faithful to the prosodic structure of the base (IDENT-OO). These faithfulness requirements on the output to output correspondence produce misalignment of the suffix in some cases (a violation of Align-Dim). Variability is explained as either historical changes involving the constraints StemMin and DISYLL (a constraint requiring the base be minimally disyllabic), or as the optionality of epenthesizing an [e] before the diminutive suffix in order to avoid a faithfulness (correspondence) violation.

The present analysis acknowledges two diminutive allomorphs, *[-ito]* and *[-sito]*, with the /e/ appearing before *[-sito]* (*[-esito]*) in some words analyzed as an epenthetic [e] with no morphological affiliation.

The optimality account of diminutivization presented here is broader in scope than previous accounts in that it not only predicts the pattern of diminutive allomorph selection (in Nicaraguan Spanish), but also appropriately defines the stems to which diminutivization applies, explains the requirements on which allomorphy selection is based, and predicts the variability observed in specific types of bases that allow secondary diminutive options.

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Chapter I: Introduction

Diminutive formation is a highly productive morphological process in Spanish. It is a process of affixation by which a diminutive suffix is combined with a base to denote diminutiveness (*casa* 'house' > *casita* 'small house'), or to imply affection or triviality (*hija* 'daughter' > *hijita* 'dear daughter', *problema* 'problem' > *problemita* 'unimportant or small problem'). Diminutivization can apply to almost all nouns (with some mass nouns constituting a few exceptions ¹), to adjectives including participles (*pequeño* 'small' > *pequeñito* 'tiny', *comprada* > *compradita* 'bought'), and in a few cases to adverbs including gerunds (*después* 'later' > *despuésito* 'a little bit later', *mirando* > *mirandito* 'looking at, watching').

There are at least four types of diminutive affixes in Spanish (*-ico*, *-illo*, *-ín*, *-ito*) of which the *-ito* type is the most productive or widely used. This type may surface as *-[itV]*, *-[sitV]*, or *-[esitV]*,² the quality of the vowel (V) is determined generally by the gender of the base, a separate morpheme by itself (/o/= masculine, /a/=feminine):

[mono] > [monito]	<i>mono</i> 'monkey'
[pan] > [pansito] or [panesito]	<i>pan</i> 'bread'
[kansyon] > [kansyonsita]	<i>canción</i> 'song'
[radyo] > [radito] or [radiesito]	<i>radio</i> 'radio'

The problem posed by diminutive formation of the *-ito* type in particular, and the goal of this investigation, is to adequately explain and predict the distributional pattern

¹ Mass nouns, as opposed to count nouns, do not appear to accept diminutivization with the conveyed meaning of 'small' for semantic reasons. However, there are common terms of endearment which are formed by diminutivizing mass nouns: *amor* 'love' > *amorcito* 'my love'
cariño 'affection' > *cariñito* 'my dear'

² *-[itV]*, *-[øitV]* or *-[eøitV]* respectively for some Peninsular dialects.

of its forms, i.e. allomorph selection, which appears to vary not only across dialects, but also within dialects.

As discussed in more detail in Chapter II, previous literature on diminutive formation³ includes several approaches developed within different theoretical frameworks: Jaeggli 1980, Prieto 1992, Crowhurst 1992, and Elordieta and Carreira 1996. All of them (except Harris 1994 in his reply to Crowhurst) agree that diminutive formation is prosodically conditioned, that is, that allomorph selection is determined by phonological factors at least related to the size of the base, its syllabic/moraic structure, and the quality of its last segment(s). Spanish diminutive formation is, therefore, a process involving prosodic morphology.

Prieto and Crowhurst, both working within a template-mapping framework in prosodic morphology, made a major contribution to the discussion of diminutive formation. They defined the base to which diminutivization applies prosodically as a disyllabic foot. The satisfaction of this minimal template accounts for the presence of an epenthetic [e] before the suffix in monosyllabic words, so that the base conforms to the disyllabic foot template. Elordieta and Carreira, working within Optimality Theory (OT), also make use of this disyllabicity condition and formalize it as the constraint DISYLL, which states that the base of suffixation must be disyllabic:

pan > **pan.si.to* (*pa.ne.*)_F *si.to* 'bread'

What is obvious, then, from these analyses is that all forms like *pansito* are ill-formed, but in my dialect (Nicaraguan Spanish), not only are these forms used, but they

³ Hereafter, 'diminutive formation' must be understood as including only the *-ito* type.

are also preferred. This "inadequacy" is, of course, the result of dialectal variation, but it is a problem of data overgeneralization.

These and other potential problems of overgeneralizing or oversimplifying need to be carefully avoided in processes with expected variability, such as diminutive formation, by clearly delimiting the corpus of data on which the analysis is based. All of the previous literature on diminutive formation is weak on this crucial point. Those who explicitly mention the specific dialect being studied do not discuss where or how they obtained their data, and/or their data are so limited that do not include variability within the dialect (Jaeggli and Crowhurst). Prieto mentions that her data come from questionnaires given to native speakers of different Spanish dialects, and indeed describes some of the dialectal variations she noted, but fails to account for them. Elordieta and Carreira, on the other hand, do not even mention which dialect they are describing, where the data come from, and whether there is any variability or not.

This problem, which I call the Over/underdetermination Data Conflict, was what first motivated me to pursue an analysis of diminutive formation limiting it to the Nicaraguan dialect alone. Such an analysis would:

- a) provide a solid corpus of data rigorously and systematically collected, and
- b) take into account preference and variability of forms.

Consequently, there are two major achievements that have been accomplished in the present study. One is the collection of data in the form of a survey in which 95 people participated and which was conducted in Nicaragua during August 1998. The survey was carefully designed to allow for a ranking of possible diminutive options for each word, and to include those categories of words defined as problematic, given previous accounts.

The second is an analysis of the results obtained in the survey within an optimality theoretic framework, which not only accounts for the general facts of diminutivization in Nicaraguan Spanish, but also accounts for the variability and irregularities observed in the process. The survey methodology and results obtained are described in Chapters III and IV.

The analysis presented here is more complete and adequate in that it is based on a solid corpus of data that has been collected specifically for the purpose of determining the preferred diminutive options, as well as any possible alternative(s). Consequently, the present account will not only explain the basic pattern of diminutive allomorph selection in Nicaraguan Spanish, but it will also account for the variability observed in some categories of words.

The analysis of diminutivization in Nicaraguan Spanish is developed here within Optimality Theory (OT) (Prince and Smolensky 1993) and its interaction with Prosodic Morphology (McCarthy and Prince 1994ab), specifically within the sub-theories of Correspondence (McCarthy and Prince 1994a) and Generalized Alignment (McCarthy and Prince 1993). Under OT, the grammar selects the most optimal output from a set of possible candidates given their evaluation against a set of universal constraints that the language has hierarchically organized and which are violable in principle. In this sense, the concept of "optimal" output underlying OT allows precisely for situations where variables or less optimal forms might arise, depending on the violation(s) incurred with respect to the hierarchy of constraints.

In Chapter V I will claim that diminutivization in Nicaraguan Spanish is an output to output correspondence process demanding the stem to be minimally bimoraic

(StemMin), and requiring the output to be faithful to the prosodic structure of the base. These faithfulness requirements on the output to output correspondence will produce misalignment of the suffix in some cases. Variability will be explained as either historical changes involving the constraints StemMin and DISYLL, or as the optionality of epenthesis of an [e] before the diminutive suffix in order to avoid a faithfulness (correspondence) violation.

The dissertation is organized as follows: Chapter II presents a review of previous literature published on diminutive formation in Spanish. The process of designing the survey is explained in detail in Chapter III, and the results are presented in Chapter IV. In Chapter V, I develop an analysis of diminutive allomorphy selection in Nicaraguan Spanish within the framework of OT based on the conclusions and generalizations drawn from the survey results. This analysis is preceded by general background information about Spanish, as well as by a summary of the principle tenets of Optimality Theory. Finally, Chapter VI includes a general summary, some final remarks, and guidelines for further study.

Chapter II: Review of Previous Accounts of Diminutive Formation in Spanish

Previous literature on diminutive formation in Spanish (of the form *-[ito]*, *-[sito]* and *-[esito]*) includes several approaches developed within different theoretical frameworks: transformational approach (Jaeggli 1980), template mapping/Prosodic Morphology (Prieto 1992, Crowhurst 1992), and Optimality Theoretic (OT) (Elordieta and Carreira 1996). In this chapter, I review these analyses presenting a brief summary of each and pointing out their problems and improvements. The chapter ends with a general conclusion in which the goals for an account of Nicaraguan Spanish diminutivization are defined in terms of the problems faced by the analyses summarized here.⁴

1. Diminutivization Explained Within a Transformational Approach

Jaeggli (1980) was the first to formally write a linguistic description and analysis of Spanish diminutivization. He presents an account of diminutive formation in Paraguayan Spanish within a transformational framework. His analysis is based on his knowledge as a native speaker.

His description of diminutive formation in Paraguayan Spanish can be summarized as follows:

- 1) The three affixes, *-it-*, *-sit-*, and *-esit-* are not found in free variation.
- 2) The syllable length of the base is a determining factor in some cases.
 - a) Disyllabic words ending in /e/ and in a diphthong select *-esit-*, whereas longer words select *-it-* and lose the final vowel.
 - b) Monosyllabic words select *-esit-* in general.

⁴ The notation used in the reviews is the one presented by the author(s) of each article.

- 3) Words that end in a consonant (including [y]), select *-sit-* independently of their base length, except words ending in /l/. Words ending in /l/ select *-it-*.
- 4) Words that end in /a/, /o/ form the diminutive with *-it-* independently of their length.

There are some problems with this descriptive summary. Number 1 is empirically wrong at least for all varieties of Spanish. In fact, diminutivization has drawn attention because of its variability among and across dialects. Jaeggli's analysis provides no account of variability. Some of his descriptions do not seem to represent the main diminutive selected for his dialect, but an alternate secondary option according to other descriptions of diminutivization in South American dialects. In particular, diminutivization of monosyllabic words and words ending in a diphthong and in /l/ is described differently (see Prieto 1992 and the discussion in 2.1 in this chapter).

To Jaeggli, the fundamental distinction is between words which the diminutive keeps the final vowel of the base, for which he analyzes the diminutive as an infix, and those which do not (consonant-final bases and other vowel-final bases), for which he analyzes the diminutive as a suffix. He claims that there are two major diminutive processes, suffixation with *-sit + V*, and infixation with *-it-*, and two rules of allomorphy (an *e*-Insertion rule and an *s*-Deletion rule). The infixation rule preserves the last vowel of the base, whereas the suffixation one does not:

-it-Infixation (p. 149)

Syllabic domain ⁵	Rule
σ_f	#X+V #
/ \	12345 →
s s	12+it 345
V	
+bk	
-stress	(σ_f means 'final syllable')

-sit - V Suffixation (p. 149)

Syllabic domain	Rule
Elsewhere	#X+[V, -stress]#
	#X#
	123 4 5 →
	123 sit + V 5

According to his stipulation, *-it*- Infixation and *-sit* + V Suffixation are in complementary distribution. *-it*- Infixation applies when the word ends in an unstressed [+back] vowel (/a/, /o/); not preceded by a glide:

-it- Infixation

loco [loko] 'crazy' #lok + it + o#

-sit + V Suffixation applies in (a)consonant-final words (including [y]), (b)in words that end in a diphthong, (c) in words that end in /e/ independently of the length, and (d) in words that end in a stressed vowel:

-sit + V Suffixation

(a) *canción* [kansyón] 'song' #cancyon#sit+V#
buey [bwéy] 'ox' #buey#sit+V#
 (b) *saurio* [sáwryo] 'saurian' #sawry + sit + V#

⁵ The nucleus of a syllable is linked to 's' for "strong". [+consonant] segments are linked to 'w' for "weak".

<i>escritorio</i> [eskritóryo] 'desk'	#escritory + sit + V#
(c) <i>madre</i> [mádre] 'mother'	#madr + sit + V#
<i>comadre</i> [komádre] 'midwife'	#comadr + sit + V#
(d) <i>sofá</i> [sofá] 'sofa'	#sofa# +sit + V#

Crucially, final /e/ is not present in the input to diminutivization, as can be seen from the examples above. This justifies his *e*-Insertion rule:

e-Insertion (p. 150)

$\phi \rightarrow e / \#CoV[-syll]_{ii} \quad (\#) \text{ ______ } sit + V \#$
 Condition: *[-syll]_{ii}sX

e-Insertion will apply in monosyllabic roots ending in consonants that cannot be followed by /s/ or in roots ending in a glide:

BASE	madr + e	saby + o
Suffixation	madr + sit + V	saby + sit + V
<i>e</i> -Insertion	madr + esit + V	saby + esit + V
	[madresita]	[sabyesito]

s-Deletion has to be posited to account for the disappearance of the suffix initial

/s/ in trisyllabic and longer words that end in unstressed /e/ or in a diphthong:

s-Deletion (p. 151)

$s \rightarrow \phi / \#(CoVCo)_2 C \text{ ______ } it + V\#$

BASE	comadr + e	despacy + o
Suffixation	comadr + sit + V	despacy + sit + V
<i>s</i> -Deletion	comadr + it + V	despacy + it + V
	[comadrita]	[despacito]

s-Deletion does not apply across word boundaries. Crucially, roots that end in a consonant can be followed by *-sit-*. That is, bases that end in /r, d, n, l/ do not undergo *s*-Deletion. However, according to his data, longer than monosyllabic words that end in /l/

must delete the initial suffix /s/, so he posits yet another rule of *s*-Deletion specifically for this type of word:

$s \rightarrow \phi / \#(\text{CoVCo})_2 \text{ l} \# \text{ ______ it + V} \# \#$
 BASE papel
 Suffixation papel# + sit + V
s-Deletion papel+ it + V
 [papelito]

One problem with his analysis is that the allomorphy rules (*e*-Insertion and *s*-Deletion) are redundant. They are necessary in order to derive the right base to which diminutivization applies (in the case of *e*-Insertion), or to derive the right outputs (in the case of *s*-Deletion). The *e*-Insertion rule inserts an /e/ that could be taken as part of the base to diminutivization from the beginning in disyllabic words like *madre* 'mother', without necessarily positing this special rule. The *s*-Deletion rule for words trisyllabic or longer ending in [-consonantal] could be avoided if these words were unified as taking *-it-*. Moreover, these rules are *ad hoc*. There is no motivation for why some categories of words that undergo *e*-Insertion do not undergo *s*-Deletion instead:

BASE madr + e
 Suffixation madr + sit + V
s-Deletion madr + it + V
 *[madrita]

In other words, the two rules of diminutivization based on the retention of the base final unstressed [+back] vowel (*-it-* Infixation) versus the loss of final vowels or suppletion of /a/, /o/ (*-sit + V* Suffixation) are not appropriate because they lead to two extra rules that are not independently motivated. Furthermore, the two rules of

diminutivization as stated do not account for variability given that they are taken to be in complementary distribution.

His account does not explain why some words choose infixation over suffixation. In fact, it is not clear why longer than bisyllabic words ending in a diphthong, which do preserve the base final vowel at the end of the diminutivized word, undergo suffixation instead of infixation (cf. *escritorito* from *#escritoryo#*).

His description of the facts of diminutive formation differs slightly from what has been described in other articles about diminutivization in Latin American dialects (cf. Prieto 1992, Crowhurst 1992, and my presentation of diminutivization in Nicaraguan Spanish, Chapter III). Consequently, his rules also account for some facts that might not be empirically true. In particular, they predict that words ending in a diphthong will undergo *e*-Insertion as the only possible diminutive form, and that all words ending in */l/* will undergo *s*-Deletion. Nonetheless, his conclusion that there are two important factors in diminutivization, the syllable length of the base and the retention versus loss of the base final vowel, was insightful for the studies that followed his 1980 article.

2. Diminutivization as a Template Mapping Process

There are two analyses that account for diminutivization as a template mapping process, Prieto (1992) and Crowhurst (1992).

2.1 Prieto's Account

Prieto (1992) bases her analysis on data obtained from a questionnaire distributed to 12 native speakers of Spanish, seven from different regions in Spain, and one each

from Colombia, Puerto Rico, Uruguay, Chile and Guatemala. However, the questionnaire itself as well as the methodology followed are not provided or explained.

The description of Spanish diminutive formation she presents for the Latin American speakers is very similar to the one I obtained for Nicaraguan Spanish (see Chapter IV):

- 1) Words that end in /a/, /o/ take *-it*, including words ending in hiatus.
- 2) Words that end in /a/, /o/, preceded by a front high glide /y/ take *-it*, but can also select the form *-ecit*.
- 3) Bisyllabic words ending in unstressed /e/ keep it and select the form *-cit*.
- 4) Trisyllabic or longer words ending in unstressed /e/ lose it and take *-it*, or retain it and select *-cit*.
- 5) Words ending in a non-fricative consonant or the front high glide [y] select *-cit*.
- 6) Words longer than monosyllabic that end in a fricative consonant form the diminutive with *-it*.⁶
- 7) Words ending in /-os, -as, -es, -is/ form the diminutive with *-it* treating /-os, -as, -es, -is/ as separate from the root (*Carlos* > *Carlitos*).
- 8) Words that end in [l] select *-cit*, at least in Bolivia, and *-it* in Central Peninsular Spanish.
- 9) Monosyllabic words select *-cit* in Latin American dialects, but *-ecit* in Peninsular Spanish.⁷

⁶ She includes in the table of this type of word, words ending in /d/ but does not explain why. I assume it is because word-final /d/ are spirantized in Spanish to /ð/ (see Table 8 in Prieto 1992: 176).

⁷ She also includes the description of a particular behavior of bisyllabic words with alternating diphthongs in the first syllable that is only pertinent to Peninsular Spanish. Therefore, I omit it here.

Numbers 2, 8, and 9 disagree with Jaeggli. My results coincide with all of them except for 6.⁸

Prieto claims that diminutivization is a mapping process that is sensitive to the prosodic subcategorization of the root, in particular, to the inflectional markers lexically-subcategorized by the root following form Harris' typology of lexical classes:

Form Classes in Spanish (p. 189)

I		II			
pas-o	'step.m'	pas-a	'raisin.f'		
guap-o	'handsome.m'	guap-a	'handsome.f'		
dentr-o	'inside'	cerc-a	'near'		
III.A		III.B		III.C	
jef-e	'boss.m'	as	'ace.m'	pas-e	'pass.m'
verd-e	'green'	común	'common.m'	inmun-e	'immune'
delant-e	'ahead'	atrás	'behind'	adred-e	'on purpose'
IV		V			
dos-is	'dose.f'	trib-u	'tribe'		
vival-es	'smart aleck'	esnob	'snob'		
lej-os	'far'				

Under her analysis, there is only one diminutive morpheme, the form /sit/, which is mapped onto the right edge of the root. Whether /sit/ surfaces as such or as /it/ depends on the slots that are available to template mapping. These slots in turn depend on the membership of the root in one of the lexical classes defined by Harris (1991).

⁸ The results of my survey will indicate a clear preference for words ending in consonants in general to select *-[sito]*.

The final unstressed back vowels of Class I and II are not present in the underlying representation, but are the result of the application of two rules: Marker Spellout, and Stem Extension:

Marker Spellout (p. 189)

Stem Extension: $\phi \rightarrow V / [\dots] d \text{ ______ } i$
 $V \rightarrow$ a/[Class II] /]d
 o/elsewhere

Class III is lexically marked as an exception to Spellout and Stem Extension.

She derives the diminutive of Class I or II, and of Class III, as follows:

Spanish Diminutive Formation (p. 192)

UR	[pintor] [Class IIIB]	[kar] [Class I]
Stem Extension	n.a.	kar m
Syllabif		
Dim. Map.		
Stray Erasure	pintorsitV	karitV
Marker Spell	pintorsito	karito
Output	[pintorsito]	[karito]

As can be the case in a derivational analysis, rule ordering is crucial in Prieto's analysis. Stem Extension has to apply before syllabification. Otherwise, the final consonants of Class I and Class II roots would be syllabified as daughters of the node "m", rather than directly linked to "s". By the same token, Marker Spellout has to apply after diminutive mapping in order to account for the final position of /o/ and /a/.

In order to account for the retention of the final /e/ of disyllabic roots, she has to assume a Default Vowel Rule before diminutive suffixation **only** for Class IIIA and IIIC words:

Spanish Diminutive Formation (p. 194)

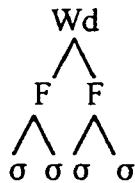
UR	klasV [IIIC]	kas [Class I]
Stem Extens.	n.a	kas m
Syllabif.		
Default V	klase	n.a
Dim. Map.		
Stray Erasure	klasesitV	kasitV
Marker Spell	klasesita	kasita
Output	[klasesíta]	[kasíta]

Default V, which translates as epenthesis, does not have any prosodic or morphological explanation. This /e/ is not necessary for syllabification in Class III C, and why it should be posited as a rule applying before diminutivization is justified only because of the lexical affiliation of the root. Moreover, if variability is taken into account, Default V would presumably apply to words ending in a diphthong in order to get the *-ecit* variants. This would mean that Default V would apply to Class I and Class II words predicting incorrect results.

The variability she observes in her description of diminutive formation is not fully accounted for. Nothing is mentioned about words ending in /l/, or words ending in a diphthong. The only cases she deals with are the retention versus loss pattern of final /e/ in trisyllabic and longer words, and the variability between *-cit* and *-ecit* in monosyllables.

The solution she proposes to account for the optionality of retaining or not the final /e/ in trisyllabic or longer words also has problems. She proposes a minimal word constraint to apply as a condition on the Default Vowel rule:

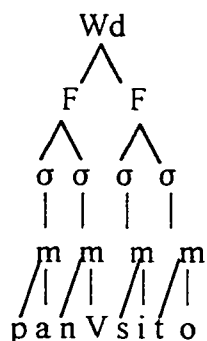
Minimal word constraint on Diminutive Formation (to apply as a condition on the Default Assignment) (p. 195)



In other words, for some speakers, the Default Vowel rule will only apply if it produces a minimal template of two bisyllabic feet. There are two complications with this minimal template. The first one is that it predicts a distinction between trisyllabic and

longer words that does not seem to be empirically justified. Trisyllabic words will never satisfy the template, thus they will never surface with the final /e/, which is not the situation represented in her data (cf. number 4). The second flaw is that this template makes reference to foot construction which occurs later in the derivation process. Moreover, one does not know exactly what happens when the template is not satisfied. Presumably, Default Vowel has to be repaired somehow.

Prieto does not give an example of a derivation with this template, but it would be logical to assume that satisfaction of the template is evaluated immediately following the application of Default Vowel given that it is a condition on this rule. However, she later seems to imply that satisfaction of the template is a condition imposed on the **result** of diminutivization, as explained by the satisfaction of the template with epenthesis in monosyllables in Peninsular dialects:



In sum, Prieto's claim that diminutive mapping is prosodically conditioned (thus a case of Prosodic Morphology) is not clearly shown. The conditions for diminutive formation mainly depend on the **lexical** affiliation of the root. That is, the root to which diminutivization applies is totally defined by its lexical affiliation, including the application of rules such as Default V (epenthesis). Why this rule, for example, should only apply to words of Class III A and C is not explained or motivated prosodically.

The minimal word constraint that she proposes to account for the optionality of retaining the Default V in trisyllabic and longer words has several problems as well. It is not clear when this minimal word template is evaluated in her derivational process of diminutive mapping, or why this bisyllabic feet template should be targeted at all in the Spanish grammar. Furthermore, her analysis does not account for the variability observed in words that end in a diphthong or in /l/.

Her analysis is an improvement over Jaeggli's in that it explicitly predicts diminutive formation in terms of root syllabification. If the syllabification template of the root calls for a nucleus, the initial /s/ of the suffix has no node to be linked to, and the diminutive will surface as /it/. In all other cases, the diminutive will surface as /sit/. The important role played by the syllabic structure of the root, already pointed out by Jaeggli, is better motivated in terms of template mapping.

2.2 Crowhurst's Account

Crowhurst (1992) presents a unified account of diminutive and augmentative formation in Mexican Spanish.⁹ Her data comes from consultations with Spanish native speakers from Mexico, particularly from Sonora; whether these consultations represent rigorous questionnaires or informal surveys is not clarified in the article.

She claims that phonologically speaking, diminutive formation has a core element /sit/ which is followed by a Terminal Element *-a* in feminine forms and *-o* in masculine forms. The initial /s/ of the suffix fails to surface in some cases, whereas an epenthetic [e]

⁹ I will limit the review to the part pertinent to diminutive formation.

frequently surfaces before the suffix. Her analysis will be mainly directed at accounting for these alternations (e~ϕ, and s~ϕ).

The description of the data her analysis will account for is the following:

- 1) Stems ending in /a/, /o/ lose the Terminal Element and choose *-ito* or *-ita* depending on the gender of the stem. This includes words ending in hiatus (kano.a > kano.ita 'canoe').
- 2) After monosyllabic stems, an [e] surfaces before the diminutive, and the initial /s/ of the suffix also surfaces.
- 3) In stems ending in a non-continuant consonant /n,r/, the initial /s/ of the suffix surfaces.
- 4) The initial /s/ of the suffix fails to surface in stems ending in a [+continuant] consonant /x, l/.
- 5) In disyllabic stems ending in an epenthetic vowel [e], the [e] surfaces before the diminutive and so does the initial /s/ of the suffix.
- 6) In longer than disyllabic stems ending in an epenthetic vowel [e], the [e] does not surface before the diminutive, and neither does the initial /s/ of the suffix.
- 7) In disyllabic stems ending in a diphthong (/ya/, /yo/) an epenthetic /e/ replaces the Terminal Element /a/, /o/, and the suffix-initial /s/ surfaces.
- 8) In longer than disyllabic stems ending in a diphthong (/ya/, /yo/), an epenthetic [e] is not present before the diminutive. The glide /y/ as well as the initial /s/ of the suffix do not surface.

9) Loan words with underlying stem-final vowels (not Terminal Elements) retain them and the initial /s/ of the suffix surfaces.¹⁰

10) Words ending in /d/ do not accept diminutivization.

As can be seen from 1 to 10 above, her description does not make allowances for variability. With this in mind, 2, 4, and 7 disagree with Prieto (1992) and with the results of my survey (see Chapter IV).

She proposes that the input to diminutivization is a word-level morphological constituent because syllabic structure is present already in the input to diminutivization (the presence of the diphthong [ye] in [*myèlesíta*] indicates that the underlying vowel /e/ in stem /*mell*/ has received cyclic word stress). Main stress is reassigned after diminutivization.

Diminutive formation is a case of template mapping within Prosodic Morphology demanding the stem to be a disyllabic foot $\{\sigma\sigma\}$. The disyllabic foot template is a condition imposed on the stem; template mapping does not cross the boundary between stem and suffix.

Diminutive and augmentative formation (p. 225)

- a. Affix to noun (DIM, AUG) or adjective (DIM) stem at the Word level.
- b. Map $\{\sigma\sigma\}$ to stem from left to right.
(Constraint: do not cross boundary between stem and suffix.)

She claims that the final /e/ in stems like *madre* 'mother', and *comadre*, 'godmother' are not present in stems when diminutivization applies. She argues that all stem-final consonants are extraprosodic and that a final [e] is supplied by postlexical

¹⁰ These words correspond to what I usually will refer to as words ending in a stressed vowel: *menú* 'menu', *bambú* 'bamboo', *matiné* 'matinee', etc.

syllabification. This [e] is **not** present during diminutivization because diminutive formation is a lexical operation. The presence of /e/ before the suffix will then be the result of epenthesis, which is required to augment a subminimal base in the case of disyllabic words. It will not surface in trisyllabic or longer words because these already satisfy the disyllabic foot template. Any unsyllabifiable final consonants of the stem are rescued by the affixation of the diminutive. Thus, final [e] in disyllabic words is analyzed as phonological, not morphological (if they were morphological they would never surface because of a Terminal Element Deletion, see below).

In order to account for the Terminal Element always being in final position she proposes that non-final Terminal Elements are erased by a rule, and then the suffix provides one according to the gender of the base: ¹¹

a. Morpheme structure constraint

*[...α]_{TE}...β]_w

b. Terminal Element Deletion

[...α]_{TE}...β]_w → [...]_{TE}...β]_w

Another rule is necessary to account for failure of the initial /s/ of the suffix to surface in words ending in a [+continuant] consonant /x,l/:

Well-formedness condition

*[+cont] [+cont]

She stipulates that this well-formedness condition does not apply to tautomorphic sequences, but does not specify this in the rule itself. After affixation

¹¹ Crowhurst disagrees with the notion that the suffix-final vowel corresponds always to the stem Terminal Element. She argues that the quality of this suffix-final vowel depends only on the gender of the stem.

and template satisfaction, a [+cont] final-stem consonant is juxtaposed with the [+cont.] suffix-initial /s/. This /s/ is deleted by the following repair rule:

[+cont] Deletion (p. 235)

$$\begin{array}{ccc} \textcircled{\text{O}} & \textcircled{\text{O}} & \textcircled{\text{O}} \\ | & | & | \\ [+cont] & [+cont] & \rightarrow [+cont] \quad [+cont] \end{array}$$

She does not exemplify this part of the analysis with a derivation.

The ordering of certain rules is crucial in her analysis. Template mapping has to apply after suffixation to account for the treatment of otherwise extraprosodic stem-final consonants in roots like /mad<r>/ (*madre* 'mother'). If suffixation has applied, /r/ is not extraprosodical since only peripheral elements can be extrametrical. Terminal Element Deletion, on the other hand, must follow Template Mapping in order to account for epenthesis not applying in disyllabic words that end in a Terminal Element. The Terminal Element is a part of the stem to which affixation applies. Non-final Terminal Elements are deleted by Terminal Element after suffixation.

The derivational process consists of several ordered steps as follows:

Syllabification of stem

Suffixation

Association of F (L→R)

Satisfaction of template (insertion of mora)

TE Deletion

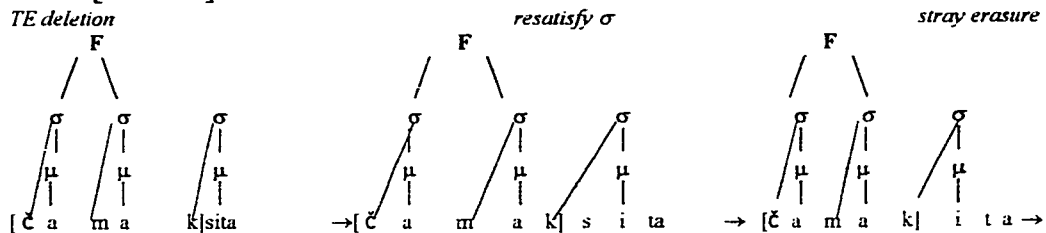
Resatisfaction of σ after TE Deletion

Stray erasure (deletion of unlinked /s/)

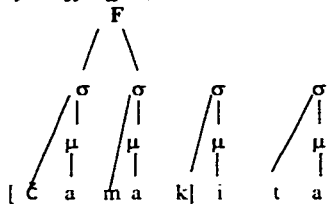
Syllabification of suffix

For stems ending in a [+cont] consonant, the rule of [+cont] Deletion would also have to apply somewhere in the derivation.¹² The following are examples of her derivations:

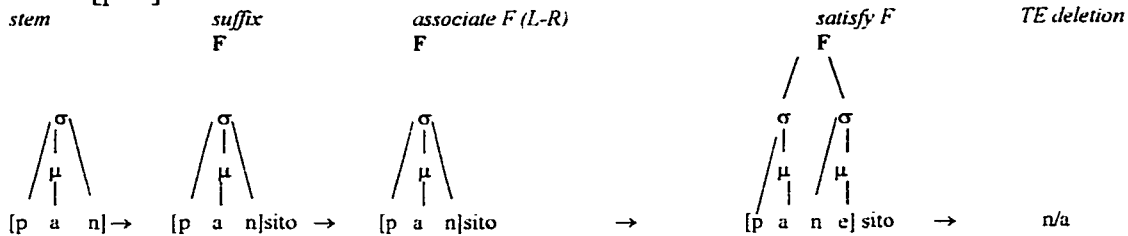
From [čamaka]sita



syllabify suffix (R-L)



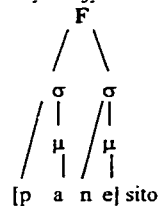
From [pan]sito



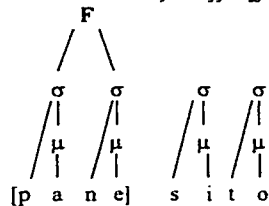
resatisfy σ

n/a →

resyllabify C

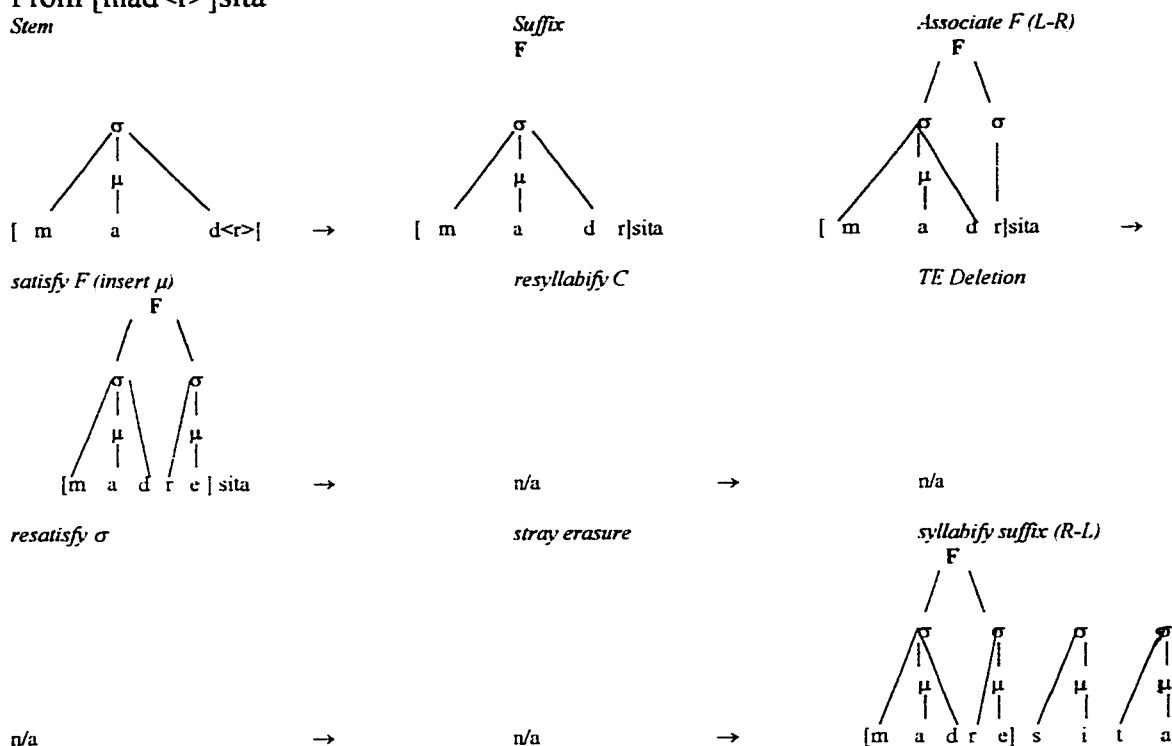


syllabify suffix (R-L)

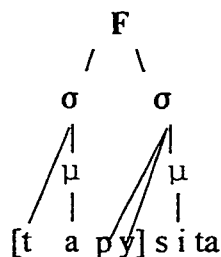


¹² She does not specify at which stage in the derivation this rule would apply.

From [mad<r>]sita
Stem



Finally, for words ending in a diphthong (/ya/, /yo/), she has to resort to two more repair rules given that these words violate a constraint forbidding syllables that dominate segments agreeing in the features [high] [front] when the /i/ of the suffix occupies the vacated position of the TE after TE Deletion has applied:

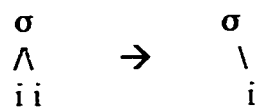


Therefore, she proposes a repair rule that delinks the second element of the sequence for disyllabic words, and a repair rule that delinks the first element of the sequence for longer words:

Double -i/ Repair I (p. 245)



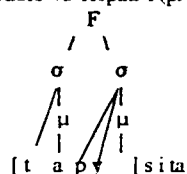
Double -i/ Repair II (p. 247)



The empty mora left by the repair rule in disyllabic words is then filled by an epenthetic

[e]:

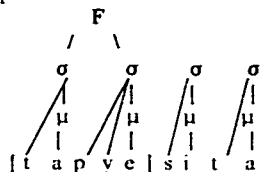
a. Double -i/ Repair I (p. 246)



b. syllabify suffix (R-L)

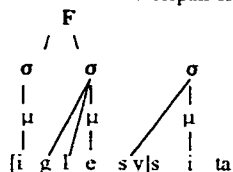


c. Epenthesis

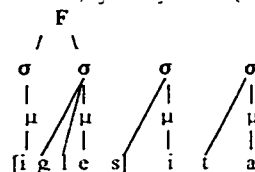


However, in longer words, the glide [y] and the suffix-initial /s/ are trapped and are stray erased:

Double -i/ Repair II



b. stray erasure, syllabify suffix (R-L)



Crowhurst's analysis offers more complete descriptive coverage than either Prieto's or Jaeggli's, as it accounts for all the descriptive points outlined at the beginning of this section. However, she needs a seemingly endless set of non-universal conditions and rules, and makes frequent use of resyllabification. She also relies on a constraint banning adjacent [+cont] consonants which defines /n, r/ as [-cont] and /x, l/ as [+cont]

which is highly controversial. Her analysis does not explain why words ending in /d/ do not accept diminutivization.

Crowhurst succeeds in defining diminutive formation as a case of Prosodic Morphology. Under her analysis, diminutivization crucially depends on the satisfaction by the stem of a prosodically-defined template, and on the faithfulness of suffixation to the syllabic structure of the stem. The definition of a minimal disyllabic template required on the stem explains the role played by the stem-final /e/ and Terminal Elements, particularly in monosyllabic and disyllabic words. Respecting the syllabic structure of the stem allows her to provide a unified account of the alternation between *-sital/-sito* and *-itol/-ita*.

Harris 1994 presents a different view of Crowhurst's work. He strongly refutes two of her claims, the OCP constraint on adjacent [+cont] consonants, and the disyllabicity requirement on the stem. He concludes that "diminutive formation involves relatively little phonology *per se*" and that the "suffix shapes are ALLOMORPHS in the sense of morpheme variants selected on a non-phonological basis" (Harris 1994: 184), the lexical affiliation of the root (Harris 1991). To my knowledge, only Harris has proposed that diminutivization allomorphy is lexically determined.

3. Diminutivization Within an Optimality Theory Approach

Elordieta and Carreira 1996 represents the most recent analysis and the only study of diminutive formation within an Optimality Theory (OT) framework. They do not provide information as to where their data comes from and how they obtained it. The data

they describe do not involve variability and are very similar to the description presented by Crowhurst:

- 1) *-citol/-cita* attach to consonant and glide final words.
- 2) *-ecito* attaches to monosyllabic words.
- 3) *-itol/-ita* attach to vowel-final words.
- 4) *-ecito* attaches to words ending in [yo], [ya].
- 5) *-itol/-ita* attach to words ending in [wa], [wo].
- 6) Words ending in hiatus form their diminutive with *-itol/-ita* retaining the hiatal-moraic structure.
- 7) Disyllabic words ending in /e/ select *-citol/-cita*.

Numbers 2 and 4 disagree with Prieto (1992) and with my survey results for Nicaraguan Spanish (see Chapter IV).

Their data do not include words ending in /l/, which have received contradicting or controversial analyses, nor trisyllabic or longer words ending in /e/, which have been at the core of all the previous analyses discussed so far.

Be that as it may, Elordieta and Carreira propose an analysis, albeit too simplified, of diminutivization that basically assumes what Crowhurst had concluded were the determining factors in diminutivization, and formalizes them in terms of prosodic constraints within OT. The article contains several descriptive mistakes and typos, and the theoretical framework is poorly elaborated, but they at least make it clear that diminutivization is a suffixation process that sometimes falls short of attachment to the edge of a prosodic word due to higher ranked prosodic and faithfulness constraints. While not stated in the article, this description categorizes diminutivization within the theory of

Generalized Alignment (McCarthy and Prince 1993), where suffixation is defined as an affix whose left edge must align with a base's right edge. On the other hand, the reference to the prosodic word as the base for diminutivization, as well as their claim that moraic structure must be specified in the input, categorizes diminutivization as an output to output correspondence process. The faithfulness constraints will regulate the correspondence relationship between the input to diminutivization, which is in itself an output (a prosodic word), and the output of diminutivization (the diminutivized word.) (See discussion about Optimality Theory in Chapter V).

They propose that the basic form of the diminutive allomorph is *-cit*, and try to explain, as Crowhurst did, the $s \sim \phi$ and $e \sim \phi$ alternations. Recall that Crowhurst posited a disyllabic requirement on the stem of diminutivization. This requirement is formalized by Elordieta and Carreira as the DISYLL constraint in OT:

DISYLL (p. 10)

The base of suffixation must be disyllabic.

They also formalize Crowhurst's insight that diminutivization is faithful to the syllabic structure of the stem by positing an identity constraint demanding that the moraic structure of the base be preserved in the output of diminutivization:

IDENT-IO (St_{\downarrow}) (p. 6)

Let S_1 be a stem in the input representation, and S_2 , its correspondent in the output representation. The association of S_1 and S_2 to moraic structure must be the same.

In order to account for the relocation of the final vowels /a/, /o/ (which they also label Terminal Elements following Harris (1991)) to the end of the diminutivized form, they propose an alignment constraint requiring all terminal elements to be word-final in derived stems:

ALIGN-GM (p. 5)

Align (-GM, L; Der. Stem, R)

-Align the left edge of a gender marker with the right edge of a derived stem.

Gender markers are defined as Class I and Class II, i.e. /a/, /o/ by the constraint -GM = Class I-II:

-GM = Class I-II

They also adopt two other constraints, MAX-IO and DEP, which they do not explain or define, but surely they reference McCarthy and Prince's Correspondence Theory (McCarthy and Prince 1994a), that basically militates against deletion of information present in the input (MAX-IO), and against epenthesis of information in the output with respect to the input (DEP).

With these 5 constraints, three of which have been independently motivated elsewhere (IDENT-IO, DEP and MAX-IO), and the correct ranking between them, which is **not** explained in the article, their description of diminutivization is accounted for:

IDENT-IO(ST_μ), DEP-IO >> MAX-IO (p. 7)

cana, -cit	ALIGN-GM	IDENT-IO(ST _μ)	DEP-IO	MAX-IO
a. ca.ni.ta				*
b. can.ci.ta μ		*!		
c. ca.n[e].ci.ta			*!	
d. ca.na.ci.ta	*!			

This tableau does not represent the correct ranking because they say elsewhere that IDENT-IO (ST_μ) must dominate DEP-IO and MAX-IO (p.7). In the table and in the ranking expressed in the figure above, IDENT-IO(ST_μ) is not crucially ranked with respect to DEP-IO (hence the dashed line separating the columns). The line dividing IDENT-IO(ST_μ) and DEP-IO should be a regular line. The output *canita* wins over the other outputs because b violates IDENT-IO (ST_μ) given that it does not respect the nonmoraic structure of the /n/ in the input /*canal*/; c violates DEP-IO because it epenthesizes [e]; d violates ALIGN-GM because the gender or class marker does not appear at the right edge of the derived stem.

Monosyllabic words will select *-cit* but will need epenthesis in order to comply with the DISYLL constraint:

(p. 11)

pan, -cit μ	DISYLL	IDENT-IO(ST _μ)	DEP-IO	MAX-IO
a. pa.n[e].ci.to		*		
c. pan.ci.to μ	*!			
c. pa.ni.to	*!			

This is the tableau for disyllabic words ending in /e/ that they present:

(p. 10)

{[call]-e, -cit}	-GM=Class I-II	ALIGN-GM	DEP-IO	MAX-IO
a. callecita		*		
b. callita		*		*!*
c. callite	*			*!

There are some mistakes in this tableau. First, neither a nor b violate ALIGN-GM. Second, output c loses with its violation of -GM=Class I-II, not because it violates

MAX-IO. Third, the tableau should include all the constraints that have been defined, even when they are not violated, i.e. IDENT-IO (ST_μ) and DISYLL.

In words that end in a diphthong, IDENT-IO (ST_μ) will require the moraic structure of the stem to be preserved in the output. According to their description, the correct output requires epenthesis when the first element of the diphthong is [y] because of the constraint in Spanish disallowing the creation of a diphthong whose elements agree with respect to the features [high] and [back]. Their constraints and constraint ranking predict the correct output given that IDENT-IO dominates DEP-IO. That is, epenthesis is allowed in order for the output to be faithful to the moraic structure of the base:

(p. 9)

radio, -cit ∨ μ σ	ALIGN-GM	IDENT-IO(ST _μ)	DEP-IO	MAX-IO
☛ a. ra.di[e].ci.to ∨ μ σ			*	*
b. ra.di.í.to μ σ		*!	*	*
c. ra.di.ci.to μ σ		*!	*	*

In summary, this study presented a very simplified picture of diminutivization, without including the major types of words that have been problematic, nor variability within types of words. They follow Crowhurst in her main proposals, i.e. that there is a

disyllabic requirement on the base of diminutivization, and that the diminutive form must try to respect the syllabic structure present in the input. The Optimality framework allows them to characterize diminutivization as obeying highly ranked output to output correspondence constraints. The simplicity afforded by Optimality Theory is obvious from a comparison of what is needed in this analysis with the different and very language particular rules and rule ordering needed in the previous derivational accounts.

4. What the Literature on Diminutive Formation Tells Us

All the articles that have been reviewed here present slightly different descriptions of diminutivization, pointing to the high variability existent not only among different dialects of Spanish, but also within speakers of the same dialect. Surprisingly though, only one of the articles acknowledges variability, and only that article attempted to collect data in an organized way (Prieto 1992). Jaeggli 1980 and Crowhurst 1992 refer to specific dialects (Paraguayan and Mexican respectively). Jaeggli presents data based on his knowledge as a native speaker that contradicts what Prieto found for South American dialects in her questionnaires. Crowhurst, on the other hand, presents data from Mexican informants, and as Harris 1994 pointed out, falls short of accounting for the variability apparent in diminutivization in Mexican Spanish. Elordieta and Carreira do not even mention where their data come from.

This literature survey reveals that the description of how diminutivization works in Spanish in a given dialect, let alone Spanish in general, is far from clear. To begin with, there is no solid corpus of data defining a clear pattern or panoramic view of diminutive formation in terms of **preference** or better yet, in terms of **preference and**

variability. An inevitable consequence is that previous analyses fail in delimiting their goals as to what needs to be accounted for. They aim to solve the problem without having really adequately defined the problem.

Although it is difficult to extrapolate information from the articles given their different descriptions of the same process, there are some areas of agreement. First, all of them (except Harris) agree that diminutive formation depends on prosodic conditions. Secondly, these prosodic conditions are related at least to the length of the words, to the syllabic/moraic structure of the words, and to the quality of the last segments of the words that undergo diminutivization.

Areas of empirical disagreement involve the following structures:

- ❖ monosyllabic words
- ❖ disyllabic words ending in /e/
- ❖ words ending in a diphthong
- ❖ words ending in /l/

Clearly there is a need for additional data and further study.

Chapter III: Survey Design

In any field project, designing a good method of eliciting the responses necessary to answer exactly what you are looking for is almost magical and premonitory: unfortunately you will not know if you really did a good job in designing your survey until it is done, and usually there is no opportunity to go back and change it. Needless to say, the key step lies in being able to dissect what it is that you want, and breaking it down in concrete questions in order to have a very clear idea of what you need to ask and how, and to be able to predict and prevent possible problems.

1. Research Questions and Word Selection

What questions did I need to address in my survey in order to test the hypothesis that diminutive allomorph selection in Nicaragua is prosodically governed? Above all, the survey should allow me to find out if there is a pattern of diminutive allomorph selection which depends on a word's phonological structure. Thus, words should be categorized according to their phonological characteristics. Consequently, words included in the survey should:

- Be of different sizes in terms of syllables, and include all possible syllable structures (controlling for moraic structure and length);
- End in different consonants, vowels, and diphthongs (controlling for feature cooccurrence restrictions);
- Include words from different morphological classes according to Harris (Harris, 1994) (controlling for type of terminal element), and;
- Include all possible stress patterns (controlling for footing, rhythm).

I began by writing down all the possible combinations of the elements mentioned above, so that I could come up with a complete list of phonologically-defined categories to be included. The total of categories was 42. With the help of a reverse dictionary, I began to fill them out with lists of words, dividing them into subgroups depending on their endings (-a, -o, -e, all other vowels, diphthongs, any consonant). Naturally, words were categorized according to their common pronunciation, as opposed to a more formal, educated, pronunciation.¹³

Possible Categories

Number of syllables	Syllable Weight	Stress
Monosyllabic words ¹⁴	All types	1)
Disyllabic words	Light syllables	2) Stressed ultima 3) Stressed penultima
	Heavy syllables	4) Stressed ultima 5) Stressed penultima
	Heavy penultima/light ultima	6) Stressed ultima 7) Stressed penultima
	Heavy ultima/light penultima	8) Stressed ultima 9) Stressed penultima
	Extraheavy penultima/light ultima	10) Stressed penultima
	Extraheavy penultima/heavy ultima	11) Stressed ultima
	Extraheavy ultima/light penultima	12) Stressed ultima
	Extraheavy ultima/heavy penultima	13) Stressed ultima

¹³ For example, a word such as 'seaside resort', *balneario*, was categorized according to its pronunciation in rapid speech, [bal.nyá.ryo], as trisyllabic, having all syllables heavy and stressed penultima (category 18), rather than based in its formal pronunciation [bal.ne.a.ryo]. The phonetic transcriptions of words will be presented only for the actual list of words that were included in the final survey, not for the preliminary lists. (See Appendix VIII: Phonetic Transcription and Translation of Words Included in Final Survey, pp. 196-197.)

¹⁴ I decided that for the moment monosyllables could be handled easier if treated as one category independently of their syllabic weight. However, at least one example of each, light, heavy, and extraheavy would have to be included in the final survey.

Number of syllables	Syllable Weight	Stress
Trisyllabic words	Light syllables	14) Stressed ultima 15) Stressed penultima 16) Stressed antepenultima
	Heavy syllables	17) Stressed ultima 18) Stressed penultima
	Heavy antepenultima/light penultima/light ultima	19) Stressed ultima 20) Stressed penultima 21) Stressed antepenultima
	Heavy antepenultima/heavy penultima/light ultima	22) Stressed ultima 23) Stressed penultima
	Heavy antepenultima/light penultima/heavy ultima	24) Stressed ultima 25) Stressed penultima 26) Stressed antepenultima
	Heavy penultima/light antepenultima/light ultima	27) Stressed penultima
	Heavy penultima/light antepenultima/heavy ultima	28) Stressed ultima 29) Stressed penultima
	Heavy ultima/light antepenultima/light penultima	30) Stressed ultima 31) Stressed penultima 32) Stressed antepenultima
	Extraheavy antepenultima/light penultima/light ultima	33) Stressed penultima
	Extraheavy penultima/light antepenultima/light ultima	34) Stressed penultima
	Extraheavy penultima/heavy antepenultima/heavy ultima	35) Stressed penultima
	Extraheavy penultima/light antepenultima/heavy ultima	36) Stressed ultima 37) Stressed penultima
	Extraheavy penultima/heavy antepenultima/light ultima	38) Stressed penultima

Number of syllables	Syllable Weight	Stress
Trisyllabic (Cont.)	Extraheavy ultima/light antepenultima/light penultima	39) Stressed ultima
	Extraheavy ultima/heavy antepenultima/light penultima	40) Stressed ultima
	Extraheavy ultima/heavy antepenultima/heavy penultima	41) Stressed ultima
	Extraheavy ultima/light antepenultima/heavy penultima	42) Stressed ultima

(See complete list in Appendix I: Initial List of Words, pp. 172-178).

A good starting point to begin narrowing down the questions I should address in the survey, thereby reducing the number of categories and words to include, was to consider my own intuitions and questions (as a native speaker) about the possible patterns of diminutive formation. These would help me decide which things could be assumed, and which should be tested and/or confirmed with the survey. My intuitions could be summarized as follows:¹⁵

1. Disyllabic words ending in unstressed -o, -a, take *-[ito]* always.

carro = *carrito* 'car'

mesa = *mesita* 'table'

2. Trisyllabic and longer words ending in unstressed vowels, including *-e*, always take

-[ito]:

peluche = *peluchito* 'stuffed animal', masc.

sacerdote = *sacerdotito* 'priest',

estuche = *estuchito* 'case', masc.

masc.

catástrofe = *catastrofita* 'catastrophe', fem.

3. Words ending in a stressed vowel always retain it, therefore selecting *-[sito]*:

maní = *[manísito]* 'peanut', masc.

menú = *[menúsito]* 'menu', masc.

bisturí = *[bisturísito]* 'scalpel', masc.

René = *[Renesito]* proper name

'Renee'

¹⁵ In Spanish, the general default case is for feminine nouns and adjectives to end in *-a*, and masculine nouns and adjectives to end in *-o*. I have indicated the gender for words ending in *-e*, in a consonant, or when *-o* and *-a* do not correspond to the default relation as: *masc.* for 'masculine' and *fem.* for 'feminine'.

5. “Irregular” words exhibiting a “mismatch” between the final vowel and gender (see footnote 15, p.37) maintain the irregularity:

mano = *manito* 'hand', fem.

moto = *motito* 'motorcycle', fem.

poema = *poemita* 'poem', masc.

(short form)

modelo = *modelito* 'model', fem.

6. Disyllabic words ending in /-e/ can take either -[ito] or -[esito]:

leche = *lechita* 'milk', fem.

coche = *cohecito* 'carriage', masc.

chunche = *chunchito* 'thing', masc.

frente = *frentecita* 'forehead', fem.

7. Words that end in diphthongs can take -[ito] or -[esito], or both:

radio = *radiécito* vs. *radiíto/radito* 'radio'

patio = *patiecito* 'patio'

8. Extraheavy monosyllabic words can take all three diminutive allomorphs:

buey = *bueysito*, *bueyito*, *bueyesito* 'ox'

miel = *mielita*, *mielsita*, *mielesita*
'honey', fem.

One cannot be totally impartial as a native speaker because no one can be judge and executioner at the same time. In fact, the more time one thinks about one's own intuitions, the harder it gets to arrive at a conclusion because one begins doubting oneself and one's own impartiality. Be that as it may, I tried at least to decide which types of words were more problematic than others based on how strong or how weak I felt about my intuitions and, of course, based on the literature about diminutive formation in Spanish.

Four categories of words seemed the most problematic, and therefore, should be included in my survey. These are categories that apparently do not follow a pattern of diminutive allomorph selection (see discussion of previous literature, Chapter II):

- Disyllabic words ending in /e/. Some of them seem to take -[ito], such as *leche* = *lechita* 'milk', fem., but others seem to take -[sito] or -[esito], depending on what you consider to be the base for diminutive formation, such as *frente* = *frentecita* 'forehead'. However, their counterparts *lechecita*, *frentita*, do not sound to me totally incorrect either.
- Words ending in /d/ regardless of length or metrical structure seem to reject any diminutive allomorph, although some of them do appear, at least, to accept -[sito].
- Words ending in /l/ regardless of length or metrical structure. I needed to see whether it was possible for people to use also -[sito] with some of the words and/or confirm that the preferred diminutive is formed with -[ito].
- Monosyllables. I felt strongly about the fact that in Nicaragua, -[sito] is the preferred diminutive for monosyllables, contrary to what has been published before. All the previous analyses, with the exception of Prieto 1992, have described monosyllables as taking **only** -[esito],¹⁶ leading to a description of Spanish diminutive formation as requiring the base to be disyllabic, and augmenting to disyllabic with /e/, if necessary. I also was not too sure about why some of the monosyllables seem to take all three forms, and whether or not there is a pattern of preference for either one of them.

From my own eight observations described above, the only ones that I could completely believe in were the first two: that all words ending in unstressed -a, -o, and trisyllabic or longer words ending in unstressed -a, -o, or -e, prefer to form their

¹⁶ Crowhurst (1992) refers specifically to the Mexican dialect and Jaeggli (1980) to the Paraguayan dialect. Elordieta and Carreira (1996) do not make any reference to a particular Spanish dialect.

diminutives with *-[ito]*. All the other categories, especially the four mentioned above, should be included in the survey to test and/or confirm my intuitions.

Additionally, it was highly desirable that only those categories and words which met the following general criteria should be chosen from the Initial List of Words in order for my survey to include the most adequate examples:

1. Semantic appropriateness. Words selected should express concepts semantically appropriate for the use of the diminutive.
2. Frequency and meaning (productivity). Words selected should be of frequent use in the Nicaraguan dialect. Words selected should also belong to a productive category defined in terms of their syllabic and metrical structure, and endings.
3. Predictability and variability. Words selected should present a certain degree of unpredictability in terms of their diminutive formation. That is, words whose diminutive forms are predictable beyond doubt should be avoided due to the size limitations of a survey.

As a result, the following categories of words were excluded (see Possible Categories, pp. 35-37):¹⁷

Disyllabic words:

- a) Light syllables, stressed penultima, ending in *-a*, *-o* (3):

Reason for exclusion: diminutives are predictably formed with *-[ito]*

<i>chicha</i> 'breast'	<i>techo</i> 'roof'
<i>pila</i> 'battery'	<i>brazo</i> 'arm'

¹⁷ The number in parenthesis corresponds to the number of the category in the table of Possible Categories on pages 35-37.

Exception: The word *mama* pertaining to this category was included in order to contrast it with similar words with stressed ultima: *mamá*, 'mother'.

- b) Heavy penultima, stressed penultima, ending in -a, -o (7):

Reason for exclusion: diminutives are predictably formed with -[ito]:

falda 'skirt' *bombo* 'bass drum'
colcha 'blanket' *palco* 'balcony'

- c) Extraheavy penultima, stressed penultima, ending in -a, -o (10):

Reason for exclusion: diminutives are predictably formed with -[ito]

mierda 'shit' *lienzo* 'canvas'
siesta 'siesta' *huerto* 'vegetable garden'

- d) Extraheavy penultima/heavy ultima, stressed ultima (11):

Reason for exclusion: group or category not productive in the language

ciencia 'science' *crueldad* 'cruelty'

Trisyllabic or longer words

- a) Light syllables, stressed ultima, ending in -a (14):

Reason for exclusion: group or category not productive in the language.

Canadá 'Canada'
Panamá 'Panama'

- b) Light syllables, stressed penultima, ending in -a, -o (15):

Reason for exclusion: diminutives are predictably formed with -ito, -ita.

palabra 'word' *cacao* 'cacao'
mojarra 'sichlid' *garrobo* 'iguana-like lizard'

Exceptions: words ending in -ía were included to test whether the diminutive forms retained the hiatus.

- c) Light syllables, stressed antepenultima, ending in -a, -o (16):

Reason for exclusion: diminutives are predictably formed with -[ito].

fábula 'fable' *clítico* 'clitic'
lágrima 'tear' *montículo* 'monticule'

- d) Heavy antepenultima, stressed ultima (19):

Reason for exclusion: group or category not productive in the language.

bisturí 'scalpel' *ajonjolí* 'sesame'

Exceptions: words ending in -ía were included to test whether the diminutive forms retained the hiatus.

- e) Heavy antepenultima, stressed penultima, ending in -a, -o (20):

Reason for exclusion: diminutives are predictably formed with -[ito].

ventana 'window' *delgado* 'thin'
chancleta 'slipper' *guayabo* 'guava tree'

- f) Heavy antepenultima, stressed antepenultima (21):

Reason for exclusion: diminutives are predictably formed with -[ito], and group or category not productive in the language.

lámpara 'lamp' *catástrofe* 'catastrophe'
fórmula 'fórmula' *cálculo* 'calculus'

- g) Heavy antepenultima/heavy penultima, stressed ultima (22):

Reason for exclusion: group or category not productive in the language.

chimpancé 'chimpanzee'

- h) Heavy antepenultima/heavy penultima, stressed penultima, ending in -a, -o (23).

Reason for exclusion: diminutives are predictably formed with -[ito].

esponja 'sponge' *asfalto* 'asphalt'

escuela 'school' *cuaderno* 'notebook'

- i) Heavy antepenultima/heavy ultima, stressed antepenultima (26):

Reason for exclusion: group or category not productive in the language.

síntesis 'synthesis'

- j) Heavy penultima, stressed penultima, ending in -a, -o (27):

Reason for exclusion: diminutives are predictably formed with -[ito].

pachanga 'party' *abuelo* 'grandfather'

rayuela 'hopscotch' *buñuelo* 'yucca pastry'

- k) Heavy ultima, stressed antepenultima (32):

Reason for exclusion: group or category not productive in the language.

espécimen 'specimen' *régimen* 'regime'

- l) All groups with one or more extraheavy syllables (33-42):

Reason for exclusion: diminutives are predictably formed with -[ito] if ending in a vowel or /l/, or -[sito], -[sita] if ending in any other consonant, and some groups or categories are not productive in the language.

excusa 'excuse' (extraheavy antepenultima, stressed penultima)

hacienda 'hacienda' (extraheavy penultima, stressed penultima)

consciencia 'consciousness' (extraheavy penultima/heavy antepenultima/heavy ultima, stressed penultima)

paciencia 'patience' (extraheavy penultima/heavy ultima, stressed penultima)

oriental 'oriental' (extraheavy penultima/heavy ultima, stressed ultima)

<i>serpiente</i> 'serpent'	(extraheavy penultima/heavy antepenultima, stressed penultima)
<i>material</i> 'material'	(extraheavy ultima, stressed ultima)
<i>superficial</i> 'superficial'	extraheavy ultima, heavy antepenultima, stressed ultima)
<i>pronunciación</i> 'pronunciation'	(extraheavy ultima/heavy antepenultima/heavy penultima, stressed ultima)
<i>manantial</i> 'spring'	(extraheavy ultima/heavy penultima, stressed ultima)

Exceptions: the most common trisyllabic words having one or more extraheavy syllables are those containing the suffix [-syón]. Predictably, their diminutives are formed with [-sito], independently of their metric structure or length. Two of these words were chosen for the survey as representatives of these groups or categories (*inflamación* 'inflammation', *confusión* 'confusion').

The resulting list of words and categories is presented in Appendix II: Preliminary List of Words for Survey, pp. 179-181.

2. Types of Tasks

The major goal of the survey was to find out the pattern of diminutive allomorph selection in Nicaragua, controlling for phonologically-defined categories of words. This can be done by asking people to give the diminutive form they would use for several selected words, and then see if a relation can be established between allomorph and category of word. This assumes that people are going to provide their preferred diminutive form. However, as we have seen, my own considerations as native speaker

and the problems having been described in previous literature pointed to the fact that at least some of the words might accept more than one diminutive form. Therefore, it was also important not only to test whether this was true and indeed applied to whole categories (which would at the same time say something about my classification of words into categories), but also to determine the order of preference. It was necessary for my survey to:

- a. have people give **all** the alternatives they could think of for a word, and;
- b. have people **rank** their alternatives according to their own preferences.

I decided to include two types of tasks: a writing or production task, and a listening or selection one.

In the writing part, the subjects were asked to write all the possible diminutive forms they would use for a given word in order of preference, from the most to the least common, with “none” also being an option.

In the selection task, the subjects listened to a recorded list of words and alternative forms of diminutives, and they had to rank the alternatives for each word using a scale from 1 to 4, with 1 being the most accepted or common, and 4 being impossible or unacceptable. They were instructed to give a 4 to any alternative they thought was not possible, so that they could assign a 4 to every alternative for a given word. The order of the alternatives offered in the recorded tape was fixed to make the exercise easier; that is, the **-[ito]** variants were given first, the **-[sito]** ones second, and finally the **-[esito]** alternatives (see Appendix IV: Recorded Part – Pilot Study, pp. 185-187). I decided to record the tape myself, so that accent or pronunciation would not be a factor.

The purpose of having a listening task in addition to a writing one was twofold:

First, as regards the possible alternatives, I did not have to rely solely on people's interest in completing the writing part and taking the time to write all the alternatives they could think of since I had control over the alternatives that they were asked to rank in the listening exercise. Secondly, I could specifically include in the listening part those words that are pronounced differently from how they are written. For example, some words containing hiatus are really diphthongized in common speech. This affects the metrical structure of words, hence their categorization, such as the word for 'poetry' *poesía* [po.e.sí.a] in formal, careful speech, but [pwe.sí.a] in common speech.¹⁸ Also, there are words which are pronounced differently based only on whether or not they have a written accent, such as *mamá* [mamá] vs. *mama* [máma]. The problem with the latter is that not all Nicaraguans know and apply accent rules, so being able to recognize the difference in pronunciation between those two words by their written form might be problematic.

The following are approximate translations of the instructions subjects were given in the Pilot Study for the writing and listening tasks respectively. Each was followed by an example: (see Appendix III: Pilot Study Sample, pp. 182-184)

Production Exercise: You will be given a list of words. Please write the diminutive form that sounds better to you in the space next to each word. If you think there are several possibilities, write them all in order of preference, beginning with the best one, then the second best, etc. If you think that a diminutive form is impossible, write NONE. Do not worry about spelling, nor by what is "correct" or not, just write the form that SOUNDS BETTER to you.

¹⁸ Remember that words were categorized according to their common pronunciation (see footnote 13, p. 35). *Poesía* is categorized as (20), trisyllabic, heavy antepenultima/light penultima/light ultima, stressed penultima given its pronunciation [pwe.sí.a]. See Appendix II: Preliminary List of Words for Survey, pp. 179-181.

Selection Exercise: You will hear a recording of a list of words and several alternative forms of diminutives for each word. Each word and its diminutive alternatives will be repeated twice. You will have a few moments to rank the alternatives with the numbers 1, 2, 3, or 4:

- 1 best option
- 2 second best option
- 3 third best option
- 4 unacceptable, impossible

If several forms seem unacceptable or impossible to you, mark each one of them with the number 4. Remember: it is not important whether the form is “correct” or not, just if they SOUND well to you, and which of them sounds better.

3. Pilot Study

A Pilot Study was given to a group of seven native Spanish speakers from different countries. The tasks included the writing and listening exercises already described in the previous section (see Appendix II: Pilot Study Sample, pp.179-181). The goals of this trial were:

1. To set the approximate time needed to complete each exercise, and;
2. To get their feedback regarding the following:
 - a) Clarity of instructions
 - b) Degree of difficulty
 - c) Length of survey
 - d) Types of words included

Before distributing the survey, they were told that it was extremely important to complete the exercises according to what was commonly used or said, and not to what

was considered to be “correct”. Emphasis was also made in that they should trust their intuitive knowledge and try not to go back to change any previous answers. They were asked to work as fast as possible and to let the proctor know when they completed each part in order to keep track of time.

3.1 Words Included in the Pilot Study

The Pilot Study included a total of 50 words selected from the 115 words in the Preliminary List of Words (Appendix II, pp. 179-181) divided evenly between the two different types of tasks, writing and listening. All words whose spelling differs even slightly from the way they are commonly pronounced were included in the listening part (see footnotes 13, p. 35, and 18, p. 47).¹⁹

The selection criteria for reducing the list to only 50 words were basically the ones I have already described in section 1. However, it is important here to keep in mind which were considered the more problematic cases in order to understand the final numeric distribution of words (see pp. 39-40). I repeat them here for convenience:

- Disyllabic words ending in /e/.
- Words ending in /d/ regardless of length or metrical structure.
- Words ending in /l/ regardless of length or metrical structure.
- Monosyllables

¹⁹ The phonetic transcriptions of the words that were included in the final survey are provided in Appendix VIII: Phonetic Transcription and Translation of Words Included in Final Survey, pp. 196-197.

Now it was easier to think of the words to be included more in terms of their endings, keeping in mind the desirability of including words of several lengths and metrical structure. The words included in the Pilot Study were the following:²⁰

Words ending in –e Purpose: to see whether disyllabic words have a diminutive allomorph selection pattern or not; included trisyllabic words, which are assumed to take *-[ito]*, as control.

Total: 13 Trisyllabic = 3 Disyllabic = 10

Production		Listening	
chiche	<i>easy</i>	catre	<i>camp bed</i>
pene	<i>penis</i>	chingue	<i>cocoa drink</i>
diente	<i>tooth</i>	monte	<i>tall grass/ a pile</i>
árabe	<i>Arabic/ Arab</i>	punche	<i>type of crab</i>
juanete	<i>bonion</i>	molde	<i>mould/pattern</i>
		naipe	<i>playing card</i>
		liendre	<i>Nit</i>
		chagüite	<i>banana plant or plantation</i>

Words ending in –d Purpose: to confirm their tendency to reject diminutives and/or their preference for *-[sito]*.

Total: 6

Production		Listening	
salud	<i>health</i>	ciudad	<i>city</i>
césped	<i>lawn</i>	ataúd	<i>coffin</i>
vecindad	<i>neighborhood</i>		
solicitud	<i>application</i>		

Words ending in –l Purpose: to confirm if they always prefer *-[ito]*, or if they can also take *-[sito]*.

²⁰ Note that more items are included for 'problematic' words.

Total: 3

Production		Listening	
burdel	<i>brothel</i>	débil	<i>Weak</i>
corresponsal	<i>newspaper</i> <i>correspondent</i>		

Monosyllables: Purpose: to see what their pattern of diminutive formation is in general; to confirm that their preferred form is –[sito], contrary to what has been published; to see whether some forms accept all three diminutives.

Total: 9

Production		Listening	
bar	<i>bar</i>	sol	<i>Sun</i>
pan	<i>bread</i>	flor	<i>Flower</i>
red	<i>net</i>	buey	<i>Ox</i>
té	<i>tea</i>	miel	<i>Honey</i>
		rey	<i>King</i>

Words ending in diphthongs and words ending in hiatus: Purpose: to contrast their patterns; to confirm and test whether hiatus/diphthongs are retained.

Total: 6

Production		Listening	
cegua	<i>Nicaraguan</i> <i>mythical animal</i>	radio	<i>Radio</i>
		poesía [pwesia]	<i>Poetry</i>
		farmacia	<i>Drugstore/farmacy</i>
		panadería	<i>Bakery</i>
		balneario	<i>Seaside resort</i>
		[balnyáryo]	

Contrast between stressed and unstressed final vowels: Purpose: to confirm

whether stressed vowels are retained, thus select $[-\text{sito}]$; to contrast them with unstressed vowels which supposedly take $[-\text{ito}]$.

Total: 5

Production		Listening	
Tabú	<i>taboo</i>	mama [máma]	<i>Mom, mother</i>
Buscapié	<i>firecracker</i>	papá [papá]	<i>Father</i>
		comité	<i>Committee</i>

Words ending in -n Purpose: to confirm if they take $[-\text{sito}]$.

Total: 3

Production		Listening	
Fustán	<i>underskirt</i>	abdomen	<i>Abdomen</i>
Salpicón	<i>salmagundi</i>		

Words ending in other consonants (-r, -m) Purpose: to confirm if they behave like words ending in any other consonant except /l,d/, thus preferring $[-\text{sito}]$.

Total: 2

Production		Listening	
Album	<i>album</i>		
Almíbar	<i>Caramelized fruit dessert</i>		

ón/ona, or/ora Purpose: to find out what the base for diminutive formation is in morphologically derived words. ²¹

²¹ ón/ona, or/ora are productive derivational suffixes added to verbs to form nouns, or to verb or nouns to form adjectives:

pensar 'to think' *pensador* 'a thinker' (noun, masculine), *pensadora* (noun, feminine)
mirar 'to look at' *mirón* 'nosy' (adj., masculine), *mirona* (adj., feminine)

Total: 2

Production		Listening	
Pintor	<i>Painter (masculine)</i>	llorona	<i>crybaby (feminine)</i>

Words with special endings Purpose: to confirm if they retain the final consonant and relocate them after the diminutive allomorph.

Total: 1

Production		Listening	
Tijeras	<i>Scissors</i>		

You can see the actual Pilot Study form in Appendix III: Pilot Study Sample, pp. 182-184, and the list of words included in the listening exercise in Appendix IV: Recorded Part – Pilot Study, pp. 185-187.

3.2 Pilot Study Feedback: Comments and Suggestions

The goals pursued with the Pilot Study were: to set the approximate time needed to complete each of the two exercises, and to get feedback about the clarity of instructions, the degree of difficulty, the length of the survey, and the types of words included.

The approximate time for completion of the writing exercise was 8 minutes, and 10 for the listening one. The length of the survey seemed reasonable for all the members of the group, and none of them expressed problems with understanding the instructions. Some of them were concerned because some words were unknown to them, a natural consequence of the survey being designed for Nicaraguans.

Their main observations and suggestions had to do with the listening part of the survey. These were:

- 1.- Presentation of three or four words was required before they got used to (get the rhythm of) the exercise
- 2.- The number of blank spaces should correspond to the number of alternatives offered for each word. That way the subjects know how many options they will listen to before ranking them.
- 3.- The ranking scale should be repeated for convenience at the beginning of the third page.

4. Final Survey

The Pilot Study was modified to accommodate all the suggestions. As you can see in the Final Survey Sample (Appendix V, pp. 188-190) the columns do correspond to the number of alternatives offered in the listening exercise (cf. Appendix VI: Recorded Part – Final Survey, pp. 191-193), and the ranking scale was repeated at the beginning of the third page.

More importantly, four words with predictable diminutives were added at the beginning of the listening exercise, so that the subjects could be trained on the task before getting to the crucial words. This would ensure that their responses would not be affected by difficulties dealing with the type of exercise or instructions. The four words added to the beginning of the listening exercise were:

<u>Predictably -[ito]</u>		<u>Predictably -[sito]</u>	
<i>buñuelo</i>	'yucca pastry'	<i>explosión</i>	'explosion'

chanchó 'pig'
cielo 'sky'

Three of these words (*buñuelo*, *cielo*, and *explosión*) had three options and one (*chanchó*) had only two in order to prepare the subjects for being attentive to the difference in number of alternatives (which corresponds to the number of columns they have for their answers). This would make the exercise easier for them according to the Pilot Study results. By the same token, one word with predictably *-[sito]* diminutive was chosen to make them aware of the fact that the best alternative is not necessarily the first one they hear.²²

Finally, the word for 'tunnel' *túnel* was also added to have the opportunity, if needed, of comparing the results for words ending in /l/ in terms of the vowels' height, since length or metrical structure did not seem to play a role:

Words ending in -l Purpose: to confirm if they always prefer *-ito*, or if they can also take *-[sito]*.

Total: 3

Production		Listening	
Burdel	<i>Brothel</i>	débil	<i>weak</i>
Corresponsal	<i>Newspaper correspondent</i>	túnel	<i>tunnel</i>

In sum, the writing or production exercise remained exactly the same as described for the Pilot Study, with a total of 25 words (see 3.1 on page 49), but the listening or selection exercise included five additional words: *buñuelo*, *chanchó*, *cielo*, and *explosión*

²² Remember that the order of the alternatives offered in the recorded tape was fixed to make the exercise easier: the *-[ito]* variants were given first, followed by the *-[sito]* ones, and finally the *-[esito]* alternatives.

(with predictable diminutives) added at the beginning of the exercise, and *túnel*, added at the end (30 words in total for the listening task).

The final survey form is provided in Appendix V: Final Survey Sample, pp. 188-190. The list of words included in the listening exercise is provided in Appendix VI: Recorded Part – Final Survey, pp. 191-193.

4.1 The Nicaraguan Survey

I conducted the survey personally in Nicaragua during the month of August, 1998. The plan was to survey as many people as possible, in groups or individually. Although I did include individuals (Group 4 below), I targeted mainly university students for two obvious reasons: a) they could be surveyed as whole groups, and; b) the data would be more homogeneous (or less variable, given the large number of factors under investigation).²³

I prepared a sheet of instructions to be distributed and read before the survey began, the goal being to emphasize the importance of answering according to the diminutive form(s) each individual would intuitively use, not to what is grammatically prescribed (see Appendix VII: General Instructions, pp. 194-195). Common speech does not necessarily follow prescriptive rules. For example, prescriptive grammar teaches people to use the *-[esito]* variant with monosyllables, but Nicaraguans commonly prefer and use the *-[sito]* one, (*pan*= *pansito* vs. *panecito* ‘bread’) a fact that was going to be

²³ Initially, I had thought of targeting a wide range of ages and social backgrounds, including literate as well as illiterate people, in order to have data for a future study of the influence of education and social factors in the selection of diminutives. I had to abandon this idea for logistical reasons and focus only on finding out the general pattern of diminutive allomorphy selection in Nicaragua in a more homogenous group.

tested precisely in the survey. Therefore, emphasizing that the goal was not to grade the correctness of forms, but to find out which were the diminutives most commonly used, was especially important since I was not controlling for level of education and/or social strata.²⁴

The surveys administered to college students were done in their normal classrooms. They had not been told previously that I would be there. I would be introduced by the professor first, who told them that I was conducting a research study about how Nicaraguans form diminutive words, and that I wanted them to participate in a survey. They were told that their participation in the study was strictly voluntary, although in two college groups, the students received extra credit in their classes for their participation. The professor then left the room. Usually there was a high interest in knowing where I came from, which university I was working with, as well as whether the study and their names were going to be published anywhere. I explained to them that the survey was part of my dissertation as a graduate student in the University of Washington, and that its goal was to find out the patterns of diminutive formation in Nicaragua. I told them that the survey had two parts, and that for the second one I would play a tape for them. They were advised that they would need 40 to 45 minutes to complete the survey. Then, I handed out the General Instructions sheet and read it out loud. If there were no questions, we began the writing or production exercise for which they were given 10 minutes. Actually, none of the groups needed the whole 10 minutes, so we usually

²⁴ Prescriptive grammar plays a very influential role in the way people actually 'choose' to speak in Nicaragua. You can tell whether people are trying to be 'educated' in their speech by paying attention, for example, to: whether they use tú forms or voseo for second person singular; whether they pronounce /v/ as a labiodental fricative or as a bilabial stop; whether they carefully pronounce all syllable-final /s/ instead of aspirating them, or; whether they use more 'latinized' words rather than frequent Spanish equivalents.

stopped when all of them had completed the exercise. I asked them to go on to the second part and to read the instructions. I made sure that the instructions were clear for everyone before I played the tape, which actually repeated the instructions and the example, and lasted for 30 to 35 minutes.

The surveys given to individuals were conducted in a similar way, except that I approached them on an individual basis, and they took the survey alone.

The total number of surveys was 95, distributed in the following way:

- Group 1: 17 college students from the Universidad Americana - UAM (American University) surveyed as a group. Ages 17-19.
- Group 2: 29 college students from the Universidad Americana – UAM (American University) surveyed as a group. Ages 17-22.
- Group 3: 30 college students from the Universidad Centroamericana – UCA (Central American University) surveyed as a group. Ages 17-26.
- Group 4: 19 individual surveys. Ages 16-83. Each person was given the survey separately, as opposed to in a group. Only two of these surveys were done with the help of an assistant (the same person for both surveys), who read the instructions to the subjects and wrote the answers for them.

Chapter IV: Results

1. Data Coding and Recording

Out of the total 95 surveys, 4 were not used in tabulating the results: two belonging to Survey Group 1, one to Survey Group 2, and one to Survey Group 3. Three of them were incomplete (the oral part had not been answered), and one did not contain diminutive forms in the written part. However, all 95 of them were recorded. The response values for the eliminated surveys were left blank. For the accepted surveys, if an item was left unanswered, a value of 0 was given to all possible responses for that item. Data was organized using a relational data base (Microsoft Access). The results for each task, oral and written, were recorded separately.

Each survey was given a numeric "Survey ID", from 1 to 95, and classified according to the group of surveys to which they belong. These groups were coded in the following way:

Group 1:	UAM A	Surveys ID 1 - 17	(eliminated: 1, 2)
Group 2:	UAM B	Surveys ID 18 - 46	(eliminated: 18)
Group 3:	UCA	Surveys ID 47 - 76	(eliminated: 47)
Group 4:	CASA	Surveys ID 77 - 95	(eliminated: none)

Each word was given an identification number, from 1 to 25 in the written part and from 1 to 30 in the oral part, and was classified into categories corresponding to the ones I had defined in terms of word endings (see previous chapter). **Table 1** on page 84 represents the distribution of words into categories.

1.1 Recording the Oral Task's Results. Tables 2A and 3A

Recording the results of the oral task was straightforward. To record the values given to each alternative, I used the same numeric scale from 1 to 4 which subjects had used to rank the diminutive options. Therefore, each choice per word had four possible numeric values.

The range of possible choices was controlled by the survey in the oral task to a maximum of 2 or 3 alternatives to be ranked per word, depending on the word category. For example, a word ending in a vowel would have only the *-[ito]* and *-[esito]* alternatives if the preceding consonant was such that it could not combine with the affix-initial /s/ of the *-[sito]* suffix (e.g. *chancho* = *chanchito*, *chanchesito*). Otherwise, it would have all three alternatives, *-[ito]*, *-[sito]*, and *-[esito]* (e.g. *buñuelo* = *buñuelito*, *buñuelsito*, *buñuelesito*). The latter is also true for words ending in a consonant (e.g. *débil* = *debilito*, *debilsito*, *debilesito*).²⁵ By the same token, words ending in hiatus (*panadería*) or in a diphthong (*farmacia*) have a maximum of three alternatives: *-[ito]* (*panaderita*, *farmacita*), hiatus-*íto* (*panaderiíta*, *farmaciíta*), and *-[esito]* (*panaderiecita*, *farmaciecita*). This means that some alternatives were only relevant for some categories of words, thus they might have values only for the relevant categories in the result tables, as can be seen in **Table 2A** Distribution by Categories: Oral Task, on page 85. In this table, for example, the column corresponding to the diminutive alternative "hiato-íto" has values only for the categories of words ending in a diphthong or in hiatus.

²⁵ The productive word-final consonants in Spanish are /d, l, n, r/. All of these, with the questionable exception of /d/ (which, in addition, is rarely pronounced syllable and word-finally), can be followed by an /s/ in onset position: *bolsa* (bag), *canción* (song), *verso* (verse). The results obtained in the survey will have a saying about the status of word-final /d/.

Table 2A represents the percentage of people who gave a value X, from 1 to 4, to each and every possible alternative offered for a given word category. The big columns or blocks divided by dark lines represent all the possible diminutives offered (-[ito], hiato-íto, -[sito], and -[esito]). The sub-columns under these big ones represent the possible ranking or numeric values people could assign to each diminutive proposed. Recall that the ranking scale went from best to worst, with 1 being the best option to 4 being an unacceptable/impossible one. If you look at the first category of words in this table, "Dis. in -e" for "Disyllabic words ending in -e", the table would indicate the following:

19.69 % of people thought that the -[ito] variant for this category was the best, thus giving this alternative a value of 1, contrasting with 43.78 % who thought it was the worst alternative, giving it a value of 4. On the other hand, 67.40 % of people thought that the -[sito] variant was the best for this category, contrasting with 6.77 % who thought this alternative was the worst. Note also that the percentage of people who chose the -[sito] variant as second best (21.73 %) is higher than the percentage of people who chose the -[ito] variant as their first option for this category of words (19.69 %). Therefore, the table suggests that overall, people prefer the -[sito] diminutive forms for disyllabic words ending in -e.

Table 2A summarizes the results of the distribution by categories without giving the detailed distribution per word within a category. This information is represented in **Table 3A** Distribution by Words: Oral Task, on page 88. In this table, all possible diminutive choices also have four sub-columns numbered 1 through 4 corresponding to the values of the ranking scale. The number under each value represents the percentage of

people who chose that value for the corresponding diminutive for a given word within a specific word category. For example, if you look under the category of words labeled "test words", you can see that 96.7% of people gave a ranking of 1 in the scale to the -[ito] alternative for *buñuelo* = *buñuelito*; 98.9% gave a ranking of 1 to *chanchito*; 97.8% gave a ranking of 1 to *cielito*, but only 5.5% did so to *explosionita* which contrasts with 72.5% who gave a ranking of 1 to the alternative *explosionsita*. Recall that these test words were added at the beginning of the oral task to allow subjects to get used to the type of exercise. They were chosen considering that their diminutives were fairly predictable as explained in 4, Chapter III:

<u>Predictably -ito</u>	<u>Predictably -[sito]</u>
buñuelo <i>yucca pastry</i>	explosión <i>explosion</i>
chancho <i>pig</i>	
cielo <i>sky</i>	

The results in **Table 3A** agree with these predictions, confirming that their selection as test words was adequate and that the subjects understood fairly well the instructions.

1.2 Problems in Recording the Oral Task's Results

There were two problems in recording and interpreting the results obtained for the oral task. One had to do with a possible misinterpretation of the instructions regarding the ranking system. The other was a more general problem, with possible effects on the

written part as well, regarding the inclusion of the fourth group of surveys, the CASA group, given its heterogeneity.²⁶

1.2.1 Effects of Possible Misinterpretation of Instructions in the Oral Task's Results

At one point while administering the survey, the question came up as to whether it was obligatory to always rank as 1 one of the alternatives given. This alerted me to the fact that some people might have misinterpreted the instructions and had always ranked one alternative as the best option. The only way I had to find out how this could affect the results was to select and exclude the surveys which had given a ranking of 1 to at least one alternative for every word in the oral part, and to compare these results with the results that included them. **Table 4** on page 92 is the same as **Table 3A**, but it excludes those surveys in which subjects gave a 1 to every word. The total of such surveys is 18, and they were:

UAM A	Surveys ID 5, 7, and 8
UAM B	Surveys ID 20, 21, 25, and 27
UCA	Surveys ID 51, 53, 54, 56, and 57
CASA	Surveys ID 78, 80, 81, 82, and 84

One easy way of comparing the results is by looking at the averages obtained per value in both tables (**Table 3A** and **Table 4**). The difference between these averages is approximately 2 points, which is negligible considering the small size of the sample.

²⁶ This group, unlike the other three, was not a university group. It included various levels of education and a wide age range (16-83).

Whether or not the subjects misinterpreted the instructions regarding the ranking scale had no significant effect on the general results.²⁷

1.2.2 Effects of Including the CASA Survey Group in the Oral Task's Results

The question of whether the inclusion of the CASA group would significantly alter the results obtained for the whole sample is a natural one given this group's different characteristics compared to the remaining three. It is the only group which is not composed solely of university students, and the only one where individual surveys were given. It also involves a wide range of levels of education and ages.

I followed the same method of comparison as in 1.2.1 to evaluate the effects of the CASA group in the total results. **Table 5A** on page 93 is the same as **Table 3A**, but it excludes the CASA group. Again, the difference in the averages per value is minimal (approximately 1 point) considering that the CASA group constitutes 20 % of the total sample (see also footnote 27).

To sum up this section, neither the misinterpretation of the instructions nor the inclusion of the CASA group had significant effects on the overall results in the oral task. Therefore, the analysis developed in the next chapter will be based on the results in tables **2A** and **3A**.

²⁷ The use of common statistical methods to test the null hypothesis that the original (**Table 3A**) and modified (**Table 4**) distributions are indistinguishable have several flaws. Primarily, the data collected in this survey is ordinal and not continuous (answers consisted of one of only 4 choices). Such data does not meet the requirements of simple methods such as the t-test. Additionally, the number of samples (respondents) is relatively small.

1.3 Recording the Written Task's Results

Coding the responses obtained in the written task was complicated by two factors: the open-ended nature of the responses, and the desire to make these results comparable to the ones obtained in the oral task.

Recall that in the written task, subjects were asked to list in order of preference all possible diminutive forms they could think of for a total of 25 words, with the option *Ninguna* ('none') being also possible. Therefore, the number or type of diminutive form(s) they could come up with was open-ended. The responses were not controlled by the survey as they were in the oral task.

1.3.1 Problems with *-illo-*Type Diminutives

One major consequence I had not foreseen was that a fair number of people would use the *illo*-type diminutive forms (e.g. *juanete* = *juanetillo* instead of *juanetito*), specially in the university groups' age range, given the return of Nicaraguan émigrés from Costa Rica during the early 90's.²⁸ I decided to include these responses recording them under *illo* (-[iɫo]), *sillo* (-[siɫo]), and *esillo* (-[esiɫo]). Thus, the tables for the written part will all have three extra columns corresponding to these three options. Although these options were recorded when given, they will not be taken into account in the analysis developed later in the next chapter. They were only recorded for completeness sake and in case they might be of interest for future research.²⁹

²⁸ Costa Rica is the only country in Central America known to use the *illo* diminutive forms, to the extent that Nicaraguans mockingly refer to people from Costa Rica as "*tiquillos*", instead of "*ticos*", the short form for the adjective "*costarricense*", meaning 'from Costa Rica'.

²⁹ An interesting research question is whether the *illo* diminutives behave similarly to the more widespread *-[ito]* ones.

1.3.2 Problems with Stem-Changes in the Diminutive Forms

A second problem regarding the type of responses given was how to deal with a constant pattern of answers that involves stem-changes due to phonological rules (most of which were quite predictable). For example, people often wrote *albuncito* for *albumcito*, changing the nasal from bilabial to alveolar before the diminutive-initial /s/ (assimilation rule).

There were five word categories affected by these stem-changes as can be seen in **Table 6** Definitions of Special Column by Word: Written Task on page 95. The most common one was the category of words ending in -d, affected by the elision of stem-final /d/ before the -[sito] diminutive, as in *salud* = *salucita*, *vecindad* = *vecindacita*, *césped* = *cespecito*. As explained in footnote 1, syllable-final /d/ followed by a syllable-initial /s/ is rarely found in Spanish. Also, syllable-final /d/ is usually omitted in the Nicaraguan dialect. Either one of them or a combination of both conditions explain the reason for this stem-change.

Another word category affected was "special ending", which consisted only of the word for 'scissors' *tijeras*. People usually omitted the irregular final /s/ when forming the diminutive with -[ito], *tijerita*. This omission might be the result of syllable-final /s/ aspiration, a characteristic of Nicaraguan Spanish, or of morphological regularization; that is, omitting an /s/ which is not distinguishing [\pm singular].³⁰

³⁰ In Spanish, the plural forms of nouns and adjectives are formed by adding -/s/:

perro (dog, sing.) = *perros* (dog, plu.)

Tijeras, however, does not have a singular form. It is always plural. People in Nicaragua tend to say "*la tijera*", morphologically regularizing the function of /s/ in *tijeras* to signal plurality.

Two other categories were also affected by stem-changes only for one word each, "monosyllables" (*té*), and "stressed vowel" (*buscapié*). Noticeably, both words are similar in that they end in a stressed /e/, and the stem-change for both is the same: an /s/ was added sometimes to form the -[esito] diminutive, *tesesito* and *buscapiesesito*. These forms seem to further support my intuitions about the tendency to retain word-final stressed vowels when forming the diminutives.

Finally, together with the word *álbum* already described, there was the word *almíbar* in the category of "in other consonants". People usually provided the form *almibítar*, displacing the final /r/ to the end of the diminutive form, as we were expecting them to do with the /s/ in *tijeras*. Nevertheless, the preferred form was *almibarsito*, thus confirming the fact that it behaved as any other word ending in a consonant different than /l, d/ (see discussion in previous chapter).

As you can see, regardless of the stem-changes, the words do reflect a diminutive preference. That is, people who wrote *albuncito*, *cespecito*, or *ciudacita* as their first option, are in fact choosing the -[sito] variant; people who wrote *tesesito* and *buscapiesesito* are indicating a preference or acceptance of the -[esito] variants for these words; people who wrote *tijerita* or *almibítar* are indicating preference or acceptance of the -[ito] alternative. Therefore, they might as well have been included under our normal columns for each one of these alternatives. Nevertheless, I thought it was interesting to keep track of the percentage of people who provided these specific, and to a certain extent predictable forms, so another extra column called "special" was added to record them.

Table 6 on page 95 contains all the forms that were recorded under "special" per word and word categories.

1.3.3 Problems with Other Diminutive Forms

As explained above, the tables representing the results obtained for the written task will have extra columns to be able to record the *illo*-type diminutives (columns *illo*, *sillo*, and *esillo*), and to record the special forms involving stem-changes (column labeled 'special'), along with the regular columns for *-[ito]*, *-[sito]*, and *-[esito]*.

Besides these four extra columns, they will also have one more labeled 'Other', where all the forms which were not as constant as the ones recorded under 'special', or which involved some form of unexpected diminutive, were recorded. Examples of responses recorded under 'Other' are:

<i>juanetico</i> for <i>juanete</i>	(<i>-ico</i> is a very infrequent diminutive in Nicaragua)
<i>reyisito</i> for <i>rey</i>	(has an unexpected /i/ inserted before the diminutive)
<i>saludacita</i> for <i>salud</i>	(has an unexpected /a/ inserted before the diminutive)
<i>corresponsabilito</i> for <i>corresponsal</i>	(has an unexpected syllable ('bi') inserted before the stem-final /l/)

1.3.4 Coding the Written Results Similarly to the Oral Ones: Tables 2B and 3B

There were two other possible types of responses left to record: when subjects considered that there was no diminutive, that is, the *Ninguna* ('none') option, and when the responses given did not resemble any diminutive at all. The way these were recorded

has to do with the system used to make the results of the written part similar and comparable to those of the oral part.

Given the different nature of both tasks, oral and written, their results had to be recorded separately. However, it was highly desirable to be able to compare and somehow unify the results of both parts. Thus, the same ranking system from 1 to 4, with 1 being the best option and 4 being impossible/unacceptable, was used to record the written responses. For example, if somebody had written only and in that order the following two options for *burdel*: *burdelito*, *burdelsito*, a value of 1 was assigned to the *-[ito]* variant, a value of 2 to the *-[sito]* variant, and a value of 4 to all other possible diminutives represented by the big columns in the tables. This means that giving a 4 to an alternative was kind of tilted because it did not exactly mean that people had considered that alternative to be impossible or unacceptable, but rather it meant that people had not considered that alternative at all. Thus, assigning a value of 4 to some alternatives in the written task is not as meaningful and transparent as it is for the oral task.

Getting back to the recording of the option *Ninguna*, and to the non-diminutive responses, they were recorded assigning a 4 to all possible diminutives. The reasoning behind this is that saying that there is no possible diminutive for a given word is the same thing as saying that all diminutives are equally unacceptable or impossible.

Table 2B Distribution by Categories: Written Task on page 86 represents the values per word category given to each of the possible diminutives considered for the written task. Again, these were: the three *ito*-types (*-[ito]*, *-[sito]*, *-[esito]*); the three *illo*-types (*illo*, *sillo*, and *esillo*); the special diminutives involving constant stem-changes ('special'), and; all other diminutive-like responses grouped into the column labeled

'Other'. Keep in mind that there is no direct way of knowing when people thought a diminutive form was impossible, except by looking at the overall percentages under sub-column 4 for all variants. For example, if you look under the word category 'ending in -d' in **Table 2B**, it indicates that most people thought this category did not have a diminutive form because the sub-columns for value 4 have extremely high numbers for all variants. Only the *-[sito]* variant received a value higher than 10 % as the best option (19.46 %, the value under sub-column 1), meaning that the few people who did give a diminutive for words ending in -d preferred the *-[sito]* variant. There is also a 9.26 % who wrote the special form for this category as their first option (*-[sito]* forms but with the elision of stem-final /d/) which in fact supports also the *-[sito]* general alternative.

Table 3B Distribution by Words: Written Task on page 89 represents the same information as **Table 2B**, but it gives the results per word rather than by word category.

Tables **2B** and **3B** are actually more explicit and detailed than what is needed for the analysis developed in the next chapter because they contain **all** the possible diminutive forms people came up with in the written task, provided they were constant enough as to be noteworthy. However, the only important alternatives in terms of the analysis are the *ito-* types and the special ones, which can be grouped together with the general *ito-* type variant they correspond to (see **Table 6** on page 95). Therefore, these tables were simplified to tables **2C** and **3C** on pages 87 and 91 respectively, which only include our three main diminutive alternatives, the 'special' one already integrated with the corresponding *-[ito]*, *-[sito]*, or *-[esito]* variants.

1.3.5 Effects of Including the CASA Survey Group in the Written Task's Results

As in the oral task, it was important to see whether the inclusion of the heterogeneous CASA group would significantly alter the general results in the written task.

I followed the same method of comparison I did in 1.2.2 to evaluate the effects of the CASA group in the overall written results. In other words, I compared the averages per value obtained with the CASA group (**Table 3C**) with those obtained without the CASA group (**Table 5B**). The average difference in the averages per value is approximately 1 point, which is again very low given that the CASA group is 20 % of the total sample (see also footnote 27 on page 64). Therefore, the analysis will be based on the results including the CASA group, and on the results as presented in **Tables 2C** and **3C**.

2. Interpreting the Results: Tables 2A, 3A, 2C and 3C

Recall that tables **3A** and **3C** are the detailed versions of tables **2A** and **2C** respectively: the latter summarize the results per word category, while the former give the results per individual words. The easiest way to interpret the results is to move from the more general results (**2A**, **2C**) to the more specific (**3A**, **3C**), taking the research questions set out by word category in Chapter III as the organizing schema. In the sections that follow, the results will be analyzed first by word category or categories, repeating for convenience at the beginning of each section the purpose as specified in Chapter III for their inclusion in the survey. Then, and only in case of discrepancies within a word category, will the results for individual words be analyzed.

2.1 Disyllabic Words Ending in -e and Trisyllabic Words Ending in -e

The purpose of including these words was to see whether they have a diminutive allomorph selection pattern or not. The group included trisyllabic words, which are assumed to take *-[ito]*, as control.

The distribution by categories for disyllabic words, both in the oral and the written task, indicate a clear preference for the *-[sito]* variants (tables 2A and 2C): 67.40% chose it as first option in the oral task contrasting with 19.69 % who chose the *-[ito]* variant. This is repeated in the written task where 61.82 % chose *-[sito]* as the first alternative vs. 12.36 % who chose *-[ito]*. Moreover, there is a high percentage of people who gave the *-[ito]* variant a ranking of 4 in the oral task (43.78 %),³¹ together with a low percentage who gave it a ranking of first, second or third option. This clearly indicates a general high rejection of *-[ito]* as an alternative for disyllabic words ending in -e.

However, if we look at the tables detailing the distribution by word (3A and 3C), we find out that the picture is not really that homogeneous.

In the oral task, all words selected *-[sito]*, except *chingue* which selected *-[ito]* with a percentage of 53.8 % as the first option. By looking at the distribution of rankings within *-[sito]*, it is obvious that people had a strong preference for choosing or rejecting it for all words (the distribution between rankings was clear-cut) except for *chingue* where the percentage of people rejecting the *-[sito]* variant is higher than the percentage of people ranking it as the first option, but lower than the percentage of people ranking it as

³¹ It is important to keep in mind that the percentage under column 4 for the oral task is a very good indicator, whereas it is not for the written part because this percentage might be inflated (see discussion in 1.3.4 on page 68).

second best. This indicates that people would easily choose, only for *chingue*, the -[sito] variant as second best rather than rejecting it. In sum, with *chingue* we have a strong preference for -ito as the first option and a weak rejection for -[sito] as second option.

On the other hand, the situation with *punche* is kind of similar but reversed. There is a clear-cut preference for the -[sito] variant. However, the distribution of scores for the -[ito] variants was similar to the distribution of the -[sito] variants for *chingue*. The difference between ranking -[ito] as impossible/unacceptable and ranking it as second option indicates a weak rejection for -[ito] as second option. In other words, *chingue* and *punche* are similar in that they have a strong choice of one alternative as the best, but a weak rejection of the other alternative as second option.

In the written task all words selected -[sito] with high percentages as first option, except *chiche*. For *chiche*, the percentage of people who chose -[sito] as first option is relatively low, which could mean that people have a strong tendency to not assign any diminutive to this word.

In short, disyllabic words ending in -e have an overall preference for -[sito], retaining the stem-final /e/. The only exception to this is the word *chingue*, which has -[ito] as the first option, but which also shows a weak rejection of -[sito] as a second alternative. Although the word *punche* fits into the general picture in that it has -[sito] as the preferred option, it also shows a weak rejection of -[ito] as an alternative. Finally, it was noted that the word *chiche* has a strong tendency not to take any form of diminutive.

For trisyllabic words ending in -e, the tables by category agree with the predicted preference for the -[ito] alternative: 60% gave it a ranking of 1 in the oral task compared

to 21.11 % who gave *-[sito]* that ranking, and 45.05 % gave *-[ito]* a ranking of 1 in the written part compared to 16.39 % who gave *-[sito]* the same ranking (tables 2A and 2C). However, discrepancies are also present within words in the written task (table 3C).³²

The written task contained the words *árabe* and *juanete*. Table 3C shows that the percentages that *árabe* received as first options for *-[ito]* and for *-[sito]* are not as dissimilar as those corresponding to the word *juanete* (38.5 % vs. 23.1% for the former, 51.6 % vs. 9.9 % for the latter correspondingly). This could mean that for *árabe* the *-[sito]* alternative is also highly accepted, or not as strongly rejected as it is for *juanete*.

2.2 Words Ending in *-d*

These words were included to confirm my intuition that they have a tendency to reject diminutives and/or a preference for *-[sito]*.

The results in all tables show a preference for *-[sito]* as predicted. That is, in all tables the percentages assigned to *-[sito]* as the best option are higher than those assigned to *-[ito]* or *-[esito]* as first options. The *-[esito]* variants received the lowest percentages overall, except for the word *ataúd* in the oral part where it had a slightly higher percentage as first option than *-[ito]*, but not higher than *-[sito]*. However, the percentages given to ranking 4 per word and per word category are noticeably high in general. For example, the percentage of people who considered *-[sito]* impossible or unacceptable is even higher than the percentage of people who considered it the best option for the word *ciudad* in the oral task (table 3A). In the written task, the same is true for all words except

³² Note that forms such as *chagüitesito*, *arabesito* and *juanetesito* were recorded under the *-[sito]* alternative although /e/ could ambivalently be taken as stem-final or diminutive-initial. That is, these forms could also have been recorded under the *-[esito]* column.

céspedes, where both percentages are tied (table 3C). These facts confirm that although there is a marked preference for choosing the *-[sito]* variant as optimal, there is also a very strong tendency to reject diminutives for this category.

2.3 Words Ending in -l

The purpose of including words ending in -l was to confirm if they always prefer *-[ito]*, or if they can also take *-[sito]*.

This word category is the first and only one to show a discrepancy between the results obtained in the oral part and the results obtained in the written one. In table 2A the distribution between the *-[ito]* and the *-[sito]* alternatives for this category of words is almost the same, with the *-[esito]* one totally disfavored. The distribution of *-[ito]* and *-[sito]* are so similar that it is difficult to decide which one is preferred, although the percentage of people who chose *-[sito]* as the best option is higher (41.44 %) than the percentage of people who chose *-[ito]* (38.12 %). Similarly, the percentage of people who rejected *-[ito]* is higher (28.37 %) than the percentage of people who rejected *-[sito]* (19.34 %). All this would indicate a slight, if any, preference for the *-[sito]* diminutive in the oral part.

On the other hand, in the results obtained per word category for the written task (table 2C), there is not only a preference for *-[ito]*, but a very marked one. 74.32 % of people gave *-[ito]* a ranking of 1 contrasting with 8.24 % who did so to the *-[sito]* option. Again, the *-[esito]* variant received very low rankings.

The results per word reflect the same situation. The words included in the oral task have very similar distributions for *-[ito]* and *-[sito]*, with a small preference for the

latter (table 3A), whereas the words included in the written task have a strong preference for the -ito variant (table 3C).

Since no other category has this type of discrepancy, it is unlikely that it is due to the nature of the tasks. The explanation must lie somewhere else, and having only two words per task makes matters more complicated. One noticeable fact is that both words included in the oral task (*débil* and *túnel*) have a stressed penultima, whereas both words in the written task (*burdel* and *corresponsal*) have a stressed ultima.

2.4 Words Ending in -n

Words ending in -n were included to confirm if they take -[sito].

The results for this category of words are transparent. In both tasks, there was a clear preference for -[sito], with very high percentages assigned to it as first option and, on the other hand, very high percentages assigned to impossible or unacceptable for -[ito] and -[esito]. 76.09 % of people chose -[sito] as first option in the oral part contrasting with 0% who chose -[ito] and 2.17 % who chose -[esito] (table 2A). Likewise, 86.81 % chose -[sito] as first option in the written part contrasting with 0 % who chose -[ito] and 0% who chose -[esito] (table 2C). There is an obvious and transparent preference for the -[sito] alternative.

2.5 Words Ending in Diphthongs and Words Ending in Hiatus

The purpose of including these types of words was to contrast their patterns, and to confirm and test whether hiatus/diphthongs are retained.

The results per category in tables 2A and 2C indicate a clear preference of words ending in diphthongs to take the -[ito] diminutive (*farmacia* = *farmacita*), with -[esito] being the second best option, and hiato-íto being totally rejected. The diphthong is not retained in the preferred option, but it is in the second best (*farmaciesita*).³³

Words ending in hiatus were only included in the oral part. Table 2A shows a preference for the hiato-íto alternative which retains the hiatus when adding the -[ito] diminutive: *poesía* = *poesiíta* contrasting with the -[ito] alternative which does not retain the hiatus: *poesía* = *poesita*, or with the -[esito] alternative which converts the hiatus in a diphthong: *poesía* = *poesiesita*. Although the percentage given to the hiato-íto diminutive as first option is higher than the ones given as first option to the other alternatives, the percentage assigned to impossible/unacceptable for hiato-íto is also very high, even higher than the one given to it as first option for the word *panadería* (table 3A). The fact that the distribution within hiato-íto between 1 and 4 is very similar indicates that although there is a tendency to choose this option, there is also a strong tendency to reject it.

In short, words ending in diphthongs prefer the -[ito] variant which does not retain the diphthong, whereas words ending in hiatus prefer, but also have a strong tendency to reject, the hiato-íto alternative which does retain the hiatus.

2.6 Words Ending in Other Consonants (-r, -m)

These words were included to confirm that they behave like words ending in any other consonant except /l,d/, thus preferring -[sito].

³³ I will argue that the reduction of the diphthongs in this type of word when the first element of the diphthong is [y] does not affect the bimoraicity of the syllable (see discussion in next chapter).

Words ending in other consonants included *álbum* and *almíbar* in the written part. They were not included in the oral task. The results per word category (table 2C) reflect a marked preference for *-[sito]* (68.68 %), over *-[ito]* (12.64 %) and *-[esito]* (0 %) as do the results for words ending in *-d* and *-n*.

It is worth noting that in table 3C the distribution between the percentages assigned to values 1 and 4 for *-[sito]* is more clear-cut in *álbum* than in *almíbar* (90.1 % vs. 8.8 % for *álbum*, 47.3 % vs. 46.2 % for *almíbar*), and that the percentage giving *-[ito]* as first option is significantly higher in the latter than in *álbum*. This means that *almíbar* is more likely to accept the *-[ito]* alternative and reject the *-[sito]* one than *álbum*. Recall that *almíbar* is one of the words for which people gave a special diminutive form. This special form consisted of assigning *-[ito]* as the preferred option with the displacement of the stem-final */r/* to the end of the diminutive word (*almibítar*). Having this option might make the alternative *-[ito]* more viable for *almíbar* than for the word *álbum*.

2.7 Words Ending in *ón/ona, or/ora*

These were included to find out what the base for diminutive formation is in morphologically derived words.

For this type of words, there is a clear pattern of preference for the *-[sito]* alternative, like for *[n]-* and *[r]-* final stems. The percentages assigned to this option as the preferred one are clearly high compared to those assigned to the *-[ito]* and *-[esito]* alternatives as best options (86.42 % ranked *-[sito]* as the best option in the oral task, table 2A, and 89.01 % did so in the written part, table 2C). Given this preference for the

-[sito] variant, the base for diminutive formation is obviously the masculine form (*llorón* for the pair *llorón/llorona* and *pintor* for the pair *pintor/pintora*) which corresponds to the preference described for words ending in -n in 2.4, and for words ending in -r in 2.6 above.

2.8 Monosyllables

Monosyllabic words were included to see what their pattern of diminutive formation is in general; to confirm that their preferred form is –[sito], in Nicaragua at least, contrary to what has been published, and; to see whether some forms accept all three diminutives.

The results per word category in tables 2A and 2C suggest a general preference for the –[sito] variant as predicted. This preference is more marked in the results obtained for the written task (2C) where the distributions are more clear-cut. 73.04 % chose –[sito] as the best option contrasting with 18.6 % who chose –[esito] and 1.77 % who chose –[ito].

The distributions within diminutive alternatives are more diffused in the results per word category in the oral task (2A), especially in the columns for –[ito] and –[esito]. For –[esito], 43.53 % thought it was the second best option contrasting with only 18.46 % who rejected it, which means that people are more likely to select it as second best than to reject it. On the other hand, the percentages for –[ito] were reversed, with the one corresponding to the impossible/unacceptable sub-column being the highest of all. This indicates that there is a strong rejection of the –[ito] variants for monosyllabic words.

In general terms, these results indicate a preference for *-[sito]*, a strong tendency to choose *-[esito]* as second best, and a strong tendency to reject *-[ito]* as an alternative for monosyllables.

In the results per individual words for the oral task (table 3A), *miel* stands out from the group as the only word whose first option corresponds to *-[ito]* instead of *-[sito]*. In this word, *-[ito]* is strongly preferred (73.6 %), but the rejection of *-[sito]* as second best is weak (only 22 % rejected it compared to 47.3 % who chose it as second best).

All other words in this group follow the general pattern of markedly preferring *-[sito]*, having *-[esito]* as a strong second option, and noticeably rejecting *-[ito]* (the percentages corresponding to sub-column 2 are relatively high for *-[esito]*, whereas all percentages for *-[ito]* are relatively low except for sub-column 4).

The only significant facts that distinguish *miel* from the other words in this group (and from all the monosyllables included in the survey) are that it ends in *-l*, which has a peculiar distribution (see 2.3), and that it is the only extra heavy monosyllable ending in a consonant. These two factors might explain the difference in terms of the diminutive selected.

There is also one word which stands out from the group included in the written part, *red* (table 3C). *Red* is the only word for which people chose *-[esito]* rather than *-[sito]* (44 % and 31.9 % respectively for ranking 1). However, those who chose *-[esito]* as the best option (sub-column 1) and those who rejected it (sub-column 4) were almost equally distributed: 44 % chose it as the best option while 45.1 % chose to reject it. This indicates that people are as likely to choose *-[esito]* for *red* as they are to reject it. Furthermore, it also indicates that there is a tendency to reject diminutive forms for *red*

given that the percentage of rejection is high even for the best option, which agrees with the general pattern described for longer words ending in -d (see section 2.2 on page 74).

A plausible explanation for the different behavior of *red* might be related to its ending in -d and being monosyllabic: if the WordMin constraint holds in Spanish (as I believe it does), final -d must be pronounced in order for the monosyllable to be bimoraic. Thus, monosyllabic words ending in -d would tend to choose -[esito] or -[ito] rather than -[sito].³⁴

All the other words included in the written task follow the pattern of preferring -[sito], with -[esito] selected as second option and the -[ito] variants highly rejected.

Summarizing, the results obtained for the category of monosyllabic words in general indicate a strong preference for -[sito], with a high likelihood of -[esito] being chosen as second best option and a marked rejection of the -[ito] diminutive forms. Two words do not follow this general pattern: *miel* in the oral part, and *red* in the written one. In both words a different diminutive was chosen as the best option (-[ito] for *miel* and -[esito] for *red*). With *miel* there is a high possibility of -[sito] being the second best alternative, while with *red* the likelihood of rejecting all diminutive forms, including -[esito], is extremely high.

2.9 Words with Special Endings

The purpose of including this group was to confirm if the words retain the final consonant and relocate them after the diminutive allomorph.

³⁴ The combination of syllable-final /d/ (in coda position) with syllable-initial /s/ (in onset position) is not frequent in Spanish.

The only word in this category was *tijeras* which has already been discussed in section 1.3.2. The stem-final /s/ is considered irregular because it is not a productive word-final consonant in Spanish. Moreover, /s/ is a false morphological marker in *tijeras* since it is not distinguishing [\pm singular] (see footnote 30 on page 66). The predictions were that people would choose -[ito] as the preferred option and would displace the irregular /s/ to the end of the diminutive word (*tijeritas*). This prediction is confirmed in table 2C. 95.60% wrote this option as their first one with -[sito] (*tijersitas*) and -[esito] (*tijeresitas*) receiving very low percentages in general as first or second options.

2.10 Words Ending in Vowels and Words Ending in Stressed Vowels

Words ending in stressed vowels were included to confirm whether stem-final stressed vowels are retained, thus select -[sito], and to contrast words ending in stressed vowels with words ending in unstressed vowels which supposedly take -[ito].

The category of words ending in an unstressed vowel other than [e] consisted only of the word *mama* in the oral task. Table 2A shows that people preferred the -[ito] variant as predicted (73.63 % contrasting with 29.67 % given to the -[sito] option). However, this result might not be reflecting intuitive knowledge. People could have opted for -[ito] instead of the alternative *mamacita* given that the -[sito] form has negative or sexual connotations.

The category of words ending in a stressed vowel consisted of *comité* and *papá* included in the oral task, and *buscapié* and *tabú* included in the written part.

The general results per word category in the oral task (table 2A) reflect a tendency to choose the -[sito] variants given that the percentages of people who ranked this option

as the best and second best (39.56 % and 41.21 %) are higher than the percentages of people who ranked *-[ito]* as the best and second best (28.96 % and 9.27 %). In addition, the percentage of people who rejected *-[ito]* was significantly higher (59.46 %) than the percentage who rejected *-[sito]* (10.44 %).

Although there is a general tendency to choose *-[sito]*, Table 3A indicates that there is a discrepancy between the words belonging to this category in the oral section: for *comité* people obviously chose the *-[sito]* variant (with 54.9 %), but for *papá* they chose *-[ito]* as the preferred one (with 78 %). This explains why the preference for *-[sito]* is not very clear in table 2A. The reasons for choosing *-[ito]* with *papá* might be also related to the fact that the alternative with *-[sito]*, *papacito* (which was the one predicted), can have negative connotations as in *mamacita*. Pragmatic factors might have interfered with the selection of diminutive, which could be in turn, counter-intuitive.

In the written task (table 2C), the tendency to prefer *-[sito]* for words ending in a stressed vowel is more transparent: 60.66 % chose it as the first option contrasting with 7.37 % who chose *-[ito]*, and 1.05 % who chose *-[esito]*. This is also true for the detailed results per individual words (see table 3C).

To summarize this section, words ending in a stressed vowel, as a category, prefer the *-[sito]* variant in general. The only exception is the word *papá* which takes *-[ito]*. This exception might be due to pragmatic connotations associated with the alternative *papacito*. There was only one word representing the category of words ending in an unstressed vowel, *mama*. The results show that this word prefers the diminutive with *-[ito]* as predicted, but again, this result might be related to the negative connotations associated with the alternative *mamacita*.

TABLE 1 Classification of Words in Categories

ORAL

Category	Word	ID
Dis. in -e	catre	8
	chingue	24
	liendre	27
	molde	6
	monte	29
	naipe	9
	punche	22
ending in -d	ataúd	15
	ciudad	11
ending in -l	débil	26
	túnel	30
ending in -n	abdomen	14
ending in diphthong	balneario	23
	farmacia	16
	radio	28
ending in hiatus	panaderí	21
	poesía	25
on/ona, or/ora	llorona	19
monosyllables	buey	13
	flor	20
	miel	5
	sol	17
test words	buñuelo	4
	chancho	1
	cielo	2
	explosió	3
Tris. in -e	chagüite	12
vowel	mama	10
stressed vowel	comité	7
	papá	18

WRITTEN

Category	Word	ID
Dis. in -e	chiche	6
	diente	3
	pene	9
ending in -d	césped	2
	salud	7
	solicitud	11
	vecindad	10
ending in -l	burdel	1
	corresponsal	13
ending in -n	fustán	18
	salpicón	17
ending in diphthong	cegua	23
on/ona, or/ora	pintor	15
in other consonants	álbum	8
	almíbar	22
monosyllables	bar	5
	pan	4
	red	21
	rey	14
	té	12
special ending	tijeras	19
Tris. in -e	árabe	20
	juanete	16
stressed vowel	buscapié	24
	tabú	25

TABLE 2A Distribution by Categories: Oral Task

Category	ito				hiato-ito				[sito]				[esito]			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	19.7	28.3	8.2	43.8					67.4	21.7	4.1	6.8				
ending in -d	7.0	8.6	5.3	79.1					46.2	15.4	8.2	30.2		7.7	15.4	14.8
ending in -l	38.1	22.1	11.0	28.7					41.4	29.8	9.4	19.3		4.4	9.4	22.1
ending in -n		10.9	5.4	83.7					76.1	14.1	6.5	3.3		2.2	8.7	8.7
ending in diphthong	44.6	15.5	7.7	32.1	3.0	3.3	7.4	86.3					26.9	34.3	11.1	27.7
ending in hiatus	8.8	5.0	5.0	81.2	34.3	14.4	5.5	45.9					4.4	7.7	8.8	79.0
on/ona, or/ora	1.1	15.4	2.2	81.3					84.6	7.7	5.5	2.2		2.2	11.0	13.2
monosyllables	25.6	9.6	11.8	52.9					46.5	27.1	11.9	14.5		19.0	43.5	19.0
test words	68.7	3.0	4.0	24.2					32.9	14.4	9.8	42.9		1.9	20.9	13.3
Tris. in -e	60.0	15.6	2.2	22.2					21.1	25.6	10.0	43.3				
vowel	73.6	20.9	1.1	4.4					29.7	60.4	4.4	5.5				
stressed vowel	29.0	9.3	2.3	59.5					39.6	41.2	8.8	10.4				
means:	34.2	13.7	5.5	49.4	18.6	8.8	6.5	66.1	48.5	25.7	7.9	17.8	8.6	18.9	13.9	58.7

TABLE 2B Distribution by Categories: Written Task

Category	ito				[sito]				[esito]				illo			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	12.4	22.9	1.1	63.6	61.8	5.5	1.1	31.6	100.0				2.2			97.8
ending in -d	3.8	2.7		93.5	19.5	2.2		78.4	1.1	1.1	1.1	96.8	1.1	1.1	1.1	97.8
ending in -l	74.3	3.8	1.1	20.8	8.2	17.0		74.7		3.2		96.8	1.1	6.0	1.1	91.8
ending in -n		2.7		97.3	86.8			13.2		2.2		97.8	1.1	1.1		98.9
ending in diphthong	78.0	2.2	1.1	18.7				100.0	3.3	7.7		89.0	1.1	7.7	1.1	90.1
on/ona, or/ora	1.1	2.2	1.1	95.6	89.0	3.3		7.7		2.2		97.8				100.0
in other consonants	11.0	7.1		81.9	53.2	6.4		40.4		3.2		96.8		1.1		98.9
monosyllables	1.8	4.5	2.1	91.6	73.0	7.0	1.1	18.9	16.7	14.9	2.0	66.4				100.0
special ending	80.2	2.2		17.6	3.3	3.3		96.7	3.3	2.2		94.5	1.1	8.8	1.1	89.0
Tris. in -e	45.1	3.3		51.6	16.4	4.9	1.1	77.6				100.0	7.2	6.2		86.7
stressed vowel	7.4	1.1		91.6	60.7	1.1		38.3				100.0				100.0
means:	31.5	5.0	1.3	65.8	52.1	5.6	1.1	52.5	6.1	4.6	1.6	94.2	2.3	4.7	1.1	95.6

Category	sillo				esillo				special				other			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	2.2	4.3	3.2	90.3				100.0				100.0				94.6
ending in -d		2.2		97.8				100.0	9.3	1.1		89.6	4.9	2.2	2.2	90.8
ending in -l		4.3	1.1	94.7		1.1		98.9				100.0	2.2	4.9	2.2	90.7
ending in -n	1.6	9.9	1.1	87.4		1.1		98.9				100.0		2.2		97.8
ending in diphthong				100.0	3.3			96.7				100.0	4.4	2.2	1.1	92.3
on/ona, or/ora	3.3	13.2		83.5			1.1	98.9				100.0	1.1	2.2		96.7
in other consonants	2.2	3.3	2.2	92.4				100.0	15.3	1.1		83.6	1.1	5.4	1.1	92.4
monosyllables	2.1	4.9	2.1	90.8	2.0	7.8	4.1	86.0	4.8	9.6	1.0	84.6	2.2	4.1	1.1	92.7
special ending				100.0			1.1	98.9	15.4			84.6		13.2	1.1	85.7
Tris. in -e		3.8		96.2				100.0				100.0	4.3	2.1	1.1	92.5
stressed vowel	1.1	7.1		91.8				100.0	1.0	6.3	2.1	90.6	2.2	2.2		95.7
means:	2.1	5.9	1.9	93.2	2.0	3.3	2.1	98.0	9.2	4.5	1.5	93.9	2.8	4.0	1.5	92.9

**TABLE 2C Distribution by Categories: Written Task
Main Diminutives Only**

Category	ito				[sito]				[esito]			
	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	12.4	22.9	1.1	63.6	61.8	5.5	1.1	31.6				100.0
ending in -d	3.8	2.7		93.5	28.4	3.2		68.4	1.1	1.1	1.1	96.8
ending in -l	74.3	3.8	1.1	20.8	8.2	17.0		74.7		3.2		96.8
ending in -n		2.7		97.3	86.8			13.2		2.2		97.8
ending in diphthong	78.0	2.2	1.1	18.7				100.0	3.3	7.7		89.0
on/ona, or/ora	1.1	2.2	1.1	95.6	89.0	3.3		7.7		2.2		97.8
in other consonants	12.6	7.1		80.2	68.7	3.8		27.5		3.2		96.8
monosyllables	1.8	4.5	2.1	91.6	73.0	7.0	1.1	18.9	18.6	14.5	1.6	65.4
special ending	95.6	2.2		2.2		3.3		96.7	3.3	2.2		94.5
Tris. in -e	45.1	3.3		51.6	16.4	4.9	1.1	77.6				100.0
stressed vowel	7.4	1.1		91.6	60.7	1.1		38.3	1.0	6.3	2.1	90.6
means:	33.2	5.0	1.3	64.2	54.8	5.5	1.1	50.4	5.5	4.7	1.6	93.2

TABLE 3A Distribution by Words: Oral Task

Category	Word	ito				hiato-ito				[sito]				[esito]			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	catre	2.2	23.1	5.5	69.2					92.3	5.5	1.1	1.1				
	chingue	53.8	14.3	5.5	26.4					20.9	37.4	13.2	28.6				
	liendre	37.1	37.1	10.1	15.7					50.6	41.6	3.4	4.5				
	molde	9.9	26.4	5.5	58.2					80.2	16.5	1.1	2.2				
	monte	5.5	25.3	6.6	62.6					90.1	7.7	1.1	1.1				
	naipe	5.5	37.4	9.9	47.3					82.4	13.2	2.2	2.2				
ending in -d	punche	24.2	35.2	14.3	26.4					54.9	30.8	6.6	7.7				
	ataúd	5.5	7.7		86.8					56.0	15.4	6.6	22.0	9.9	16.5	12.1	61.5
ending in -l	ciudad	8.8	9.9	5.5	75.8					36.3	15.4	9.9	38.5	5.5	14.3	17.6	62.6
	débil	32.2	16.7	13.3	37.8					33.3	24.4	11.1	31.1	6.7	14.4	18.9	60.0
ending in -n	túnel	44.0	27.5	8.8	19.8					49.5	35.2	7.7	7.7	2.2	4.4	25.3	68.1
	abdomen		10.9	5.4	83.7					76.1	14.1	6.5	3.3	2.2	8.7	8.7	80.4
ending in diphthong	baleario	21.1	6.7	10.0	62.2	3.3	3.3	8.9	84.4					33.3	26.7	6.7	33.3
	farmacia	67.0	12.1	5.5	15.4	4.4	4.4	5.5	85.7					5.5	34.1	18.7	41.8
ending in hiatus	radio	45.6	27.8	7.8	18.9	1.1	2.2	7.8	88.9					42.2	42.2	7.8	7.8
	panadería	8.8	5.5	5.5	80.2	27.5	11.0	8.8	52.7					1.1	5.5	8.8	84.6
on/ona, or/ora	poesía	8.9	4.4	4.4	82.2	41.1	17.8	2.2	38.9					7.8	10.0	8.9	73.3
	llorona	1.1	15.4	2.2	81.3					84.6	7.7	5.5	2.2	2.2	11.0	13.2	73.6
monosyllables	buey	5.5	7.7	13.2	73.6					63.7	23.1	6.6	6.6	17.6	49.5	16.5	16.5
	flor	1.1	3.3	14.3	81.3					79.1	17.6	3.3		18.7	67.0	6.6	7.7
test words	miel	73.6	12.1	8.8	5.5					8.8	47.3	22.0	22.0	9.9	25.3	30.8	34.1
	sol	22.2	15.6	11.1	51.1					41.1	24.4	17.8	16.7	30.0	32.2	22.2	15.6
Tris. in -e	buñuelo	96.7	1.1	1.1	1.1					1.1	31.1	18.9	48.9	1.1	11.2	24.7	62.9
	chanchito	98.9	1.1												16.9	7.9	75.3
vowel	cielo	97.8	1.1		1.1						4.4	9.9	85.7	3.3	43.3	13.3	40.0
	explosión	5.5	9.9	7.7	76.9					72.5	13.2	4.4	9.9	1.1	12.2	7.8	78.9
stressed vowel	chaguíte	60.0	15.6	2.2	22.2					21.1	25.6	10.0	43.3				
	mama	73.6	20.9	1.1	4.4					29.7	60.4	4.4	5.5				
means:	comité	4.4	8.8	2.2	84.6					54.9	14.3	14.3	16.5				
	papá	78.0	17.6	4.4						24.2	68.1	3.3	4.4				
std dev:		34.4	15.3	7.1	48.3	15.5	7.7	6.6	70.1	52.3	24.8	7.9	17.9	11.1	23.4	14.5	51.5
		33.1	10.6	3.9	30.6	17.9	6.6	2.8	22.8	27.1	16.7	5.8	20.7	12.4	17.2	7.3	26.0
N:		29	30	27	28	5	5	5	5	23	24	24	23	18	19	19	19

TABLE 3B Distribution by Words: Written Task (1 of 2)

Category	Word	ito				[sito]				[esito]				special				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Dis. in -e	chiche	15.4	2.2		82.4	26.4	3.3	1.1	69.2					100.0				100.0
	diente	14.3	47.3		38.5	83.5	9.9		6.6					100.0				100.0
	pene	7.7	19.8	1.1	71.4	76.9	3.3		19.8					100.0				100.0
ending in -d	césped	4.3	4.3		91.3	37.4	2.2		60.4	1.1	1.1	1.1	1.1	96.7	11.0	1.1		87.9
	salud	3.3	1.1		95.6	23.1			76.9		1.1			98.9	13.2			86.8
	solicitud	5.5			94.5	13.2			86.8	1.1				98.9	6.6			93.4
ending in -l	vecindad	2.2			97.8	5.5			94.5					100.0	6.6			93.4
	burdel	84.6	5.5	1.1	8.8	9.9	30.8		59.3		3.3			96.7				100.0
ending in -n	corresponsal	64.8	2.2		33.0	6.6	3.3		90.1					100.0				100.0
	fustán		4.4		95.6	89.0			11.0					100.0				100.0
ending in diphthong on/ona, or/ora	salpicón		1.1		98.9	84.6			15.4		2.2			97.8				100.0
	ceguera	78.0	2.2	1.1	18.7				100.0	3.3	7.7			89.0				100.0
in other consonants	pintor	1.1	2.2	1.1	95.6	89.0	3.3		7.7		2.2			97.8				100.0
	álbum	1.1	7.7		91.2	62.6			37.4		3.3			96.7	27.5	1.1		71.4
monosyllables	almíbar	20.9	6.6		72.5	47.3	6.6		46.2					100.0	3.3			96.7
	bar	1.1	3.3		95.7	94.5			5.5		7.7			92.3				100.0
	pan	2.2	4.4	2.2	91.2	80.2	12.1	1.1	6.6	15.4	31.9	2.2	50.5					100.0
	red	2.2	6.6		91.2	31.9	8.8		59.3	44.0	11.0		45.1					100.0
	rey	4.4			95.6	78.0	4.4		17.6	12.1	14.3		73.6					100.0
special ending	té				100.0	89.0	3.3		7.7	1.1			98.9	5.5	11.0	1.1		82.4
	tijeras	80.2	2.2		17.6		3.3		96.7	3.3	2.2		94.5	15.4				84.6
Tris. in -e	árabe	38.5	2.2		59.3	23.1	4.4	1.1	71.4				100.0					100.0
	juanete	51.6	4.4		44.0	9.9	5.5		84.6				100.0					100.0
stressed vowel	buscapié				100.0	60.4	1.1		38.5				100.0	1.1	6.6	2.2		90.1
	tabú	7.7	1.1		91.2	61.5			38.5				100.0					100.0

TABLE 3B Distribution by Words: Written Task (2 of 2)

Category	Word	illo				sillo				esillo				other					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Dis. in -e	chiche				100.0		1.1		98.9					100.0			2.2	97.8	
	diente		3.3		96.7	2.2	8.8	3.3	85.7					100.0			2.2	95.6	
	pene		1.1		98.9	2.2	3.3	3.3	91.2					100.0			5.5	94.5	
ending in -d	césped		1.1	1.1	97.8		2.2		97.8					100.0	5.5	3.3	2.2	89.0	
	salud				100.0				100.0					100.0	2.2	2.2		95.6	
	solicitud		1.1		98.9				100.0					100.0	2.2	1.1		96.7	
ending in -l	vecindad				100.0				100.0					100.0	9.9	2.2		87.9	
	burdel	1.1	5.5	1.1	92.3		4.4	1.1	94.5					100.0	1.1	8.8	3.3	86.8	
	corresponsal		6.6	1.1	92.3				100.0		1.1			98.9	3.3	1.1	1.1	94.5	
ending in -n	fustán				100.0	2.2	11.0	1.1	85.7					98.9			2.2	97.8	
	salpicon	1.1			98.9	1.1	8.8	1.1	89.0					100.0			2.2	97.8	
ending in diphthong	cegua	1.1	7.7	1.1	90.1				100.0			3.3		96.7	4.4	2.2	1.1	92.3	
on/ona, or/ora	pintor				100.0	3.3	13.2		83.5				1.1	98.9	1.1	2.2		96.7	
in other consonants	álbum				100.0	2.2	2.2	3.3	92.3					100.0			8.8	1.1	90.1
	almibar		1.1		98.9		4.4	1.1	94.5					100.0	1.1	2.2		96.7	
monosyllables	bar				100.0		8.8	1.1	90.1					100.0			4.4	95.6	
	pan				100.0		1.1	3.3	95.6			2.2	14.3	5.5	78.0		3.3	96.7	
	red				100.0	1.1	2.2		96.7		2.2	9.9	3.3	84.6	2.2	5.5		92.3	
	rey				100.0		6.6		93.4					100.0	2.2	4.4	1.1	92.3	
	té				100.0	3.3	6.6		90.1			1.1		98.9		3.3		96.7	
special ending	tijeras	1.1	8.8	1.1	89.0				100.0				1.1	98.9		13.2	1.1	85.7	
Tris. in -e	árabe				100.0				96.7		3.3			100.0			2.2	97.8	
	juanete	7.7	6.6		85.7		4.4		95.6					100.0	4.4	2.2	1.1	92.3	
stressed vowel	buscapié				100.0	1.1	6.6		92.3					100.0				100.0	
	tabú				100.0	1.1	7.7		91.2					100.0	2.2	2.2		95.6	

TABLE 3C Distribution by Words: Written Task
Main Diminutives Only

Category	Word	ito				[sito]				[esito]				
		1	2	3	4	1	2	3	4	1	2	3	4	
Dis. in -e	chiche	15.4	2.2		82.4	26.4	3.3	1.1	69.2					100.0
	diente	14.3	47.3		38.5	83.5	9.9		6.6					100.0
	pene	7.7	19.8	1.1	71.4	76.9	3.3		19.8					100.0
ending in -d	césped	4.3	4.3		91.3	48.4	3.3		48.4	1.1	1.1	1.1		96.7
	salud	3.3	1.1		95.6	36.3			63.7		1.1			98.9
	solicitud	5.5			94.5	19.8			80.2	1.1				98.9
	vecindad	2.2			97.8	12.1			87.9					100.0
ending in -i	burdel	84.6	5.5	1.1	8.8	9.9	30.8		59.3					96.7
	corresponsal	64.8	2.2		33.0	6.6	3.3		90.1					100.0
ending in -n	fustán		4.4		95.6	89.0			11.0					100.0
	salpicón		1.1		98.9	84.6			15.4					97.8
ending in diphthong	cegua	78.0	2.2	1.1	18.7				100.0	3.3	7.7			89.0
on/ona, or/ora	pintor	1.1	2.2	1.1	95.6	89.0	3.3		7.7					97.8
in other consonants	álbum	1.1	7.7		91.2	90.1	1.1		8.8					96.7
	almíbar	24.2	6.6		69.2	47.3	6.6		46.2					100.0
	bar	1.1	3.3		95.6	94.5			5.5					92.3
monosyllables	pan	2.2	4.4	2.2	91.2	80.2	12.1	1.1	6.6	15.4	31.9	2.2		50.5
	red	2.2	6.6		91.2	31.9	8.8		59.3	44.0	11.0			45.1
	rey	4.4			95.6	78.0	4.4		17.6	12.1	14.3			73.6
	té				100.0	89.0	3.3		7.7	6.6	11.0	1.1		81.3
special ending	tijeras	95.6	2.2		2.2				96.7	3.3	2.2			94.5
Tris. in -e	érase	38.5	2.2		59.3	23.1	4.4	1.1	71.4					100.0
	juanete	51.6	4.4		44.0	9.9	5.5		84.6					100.0
stressed vowel	buscapié				100.0	60.4	1.1		38.5	1.1	6.6	2.2		90.1
	tabú	7.7	1.1		91.2	61.5			38.5					100.0
	means:	25.3	6.4	1.3	74.1	54.3	6.3	1.1	45.6	9.8	7.5	1.6		92.0
	std dev:	31.8	10.2	0.5	31.2	31.6	7.0	0.0	33.3	13.8	8.2	0.6		14.8
	N:	20	21	5	25	23	17	3	25	9	14	4		25

TABLE 4 Distribution by Words Excluding Those Who Gave 1 to All: Oral Task

Category	Word	ito				hiato-ito				[sito]				[esito]			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. In -e	catre	1.4	19.2	6.8	72.6					91.8	5.5	1.4	1.4				
	chingue	50.7	15.1	6.8	27.4					17.8	35.6	16.4	30.1				
	llendre	38.0	32.4	12.7	16.9					46.5	45.1	4.2	4.2				
	molde	6.8	23.3	6.8	63.0					80.8	15.1	1.4	2.7				
	monte	2.7	19.2	8.2	69.9					91.8	5.5	1.4	1.4				
	nalpe	4.1	35.6	12.3	47.9					80.8	15.1	2.7	1.4				
	punche	21.9	34.2	17.8	26.0					52.1	30.1	8.2	9.6				
ending in -d	ataúd	5.5	6.8		87.7					53.4	15.1	6.8	24.7	5.5	11.0	15.1	68.5
	ciudad	8.2	6.8	5.5	79.5					26.0	16.4	11.0	46.6	4.1	6.8	20.5	68.5
ending in -l	débil	29.2	15.3	13.9	41.7					30.6	22.2	13.9	33.3	5.6	15.3	18.1	61.1
	túnel	42.5	24.7	9.6	23.3					50.7	30.1	9.6	9.6	1.4	5.5	21.9	71.2
ending in -n	abdomen		10.8	5.4	83.8					73.0	16.2	6.8	4.1		5.4	10.8	83.8
ending in diphthong	bañeario	18.1	8.3	9.7	63.9	2.8	6.9	90.3						29.2	25.0	8.3	37.5
	farmacia	63.0	12.3	5.5	19.2	2.7	4.1	5.5	87.7					5.5	26.0	19.2	49.3
	radio	44.4	25.0	8.3	22.2	1.4	6.9	91.7						41.7	41.7	8.3	8.3
ending in hiatus	panadería	6.8	4.1	6.8	82.2	15.1	9.6	11.0	64.4						4.1	8.2	87.7
	poesía	8.3	1.4	5.6	84.7	33.3	19.4	2.8	44.4					5.6	11.1	9.7	73.6
on/ona, or/ora	llorona		15.1	2.7	82.2					82.2	8.2	6.8	2.7	2.7	8.2	12.3	76.7
monosyllables	buey	5.5	8.2	12.3	74.0					61.6	21.9	8.2	8.2	16.4	47.9	17.8	17.8
	flor	1.4	1.4	13.7	83.6					79.5	17.8	2.7		17.8	68.5	6.8	6.8
	miel	75.3	11.0	8.2	5.5					6.8	47.9	26.0	19.2	8.2	27.4	30.1	34.2
	sol	22.2	15.3	8.3	54.2					41.7	22.2	18.1	18.1	26.4	31.9	25.0	16.7
	test words	buñuelo	95.9	1.4	1.4	1.4					1.4	26.0	23.3	49.3	1.4	12.5	20.8
	chanchó	98.6	1.4												16.9	9.9	73.2
	cielo	97.3	1.4		1.4						4.1	6.8	89.0	4.2	37.5	15.3	43.1
	explosión	2.7	6.8	9.6	80.8					69.9	16.4	2.7	11.0	1.4	11.1	6.9	80.6
Tris. In -e	chagüite	58.3	12.5	2.8	26.4					18.1	25.0	12.5	44.4				
vowel	mama	74.0	20.5	1.4	4.1					28.8	58.9	5.5	6.8				
stressed vowel	comité	5.5	5.5	2.7	86.3					43.8	17.8	17.8	20.5				
	papá	76.7	17.8	5.5						24.7	67.1	4.1	4.1				
	means:	34.5	13.8	7.8	50.4	17.0	7.5	6.6	75.7	50.2	24.4	9.1	19.2	11.1	21.8	15.0	53.9
	std dev:	33.2	9.9	4.1	31.0	15.4	7.4	3.0	20.7	27.6	16.3	7.0	21.6	12.0	17.4	6.8	26.6
	N:	28	30	27	28	3	5	5	5	23	24	24	23	16	19	19	19

TABLE 5A Distribution by Words Excluding CASA Group: Oral Task

Category	Word	ito				hiato-ito				[sito]				[esito]			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Dis. in -e	catre	2.8	19.4	5.6	72.2					93.1	4.2	1.4	1.4				
	chingue	55.6	12.5	4.2	27.8					15.3	34.7	16.7	33.3				
	llendre	34.3	35.7	10.0	20.0					50.0	41.4	4.3	4.3				
	molde	6.9	23.6	6.9	62.5					80.6	15.3	1.4	2.8				
	monte	4.2	22.2	6.9	66.7					90.3	6.9	1.4	1.4				
	naipe	5.6	34.7	11.1	48.6					80.6	15.3	2.8	1.4				
	punche	16.7	36.1	16.7	30.6					59.7	25.0	8.3	6.9				
			6.9	8.3		84.7				56.9	16.7	8.3	18.1		9.7	15.3	12.5
ending in -d	ciudad	11.1	9.7	6.9	72.2				38.9	12.5	11.1	37.5		2.8	12.5	22.2	62.5
ending in -l	débil	22.5	15.5	15.5	46.5				40.8	21.1	11.3	26.8		5.6	15.5	18.3	60.6
	túnel	43.1	25.0	8.3	23.6				50.0	33.3	8.3	8.3		1.4	4.2	23.6	70.8
ending in -n	abdomen		12.3	4.1	83.6				79.5	13.7	6.8			1.4	9.6	9.6	79.5
			22.5	2.8	11.3	63.4	4.2	2.8	5.6	29.6	28.2	7.0	35.2				
ending in diphthong	balneario	63.9	12.5	6.9	16.7	5.6	4.2	4.2	86.1					5.6	30.6	19.4	44.4
	farmacia	40.8	26.8	8.5	23.9	1.4	1.4	5.6	91.5					45.1	40.8	7.0	7.0
ending in hiatus	panadería	6.9	6.9	5.6	80.6	27.8	8.3	9.7	54.2					1.4	4.2	11.1	83.3
	poesía	8.5	4.2	4.2	83.1	38.0	15.5	2.8	43.7					7.0	12.7	7.0	73.2
on/ona, or/ora	llorona		16.7	2.8	80.6				83.3	8.3	5.6	2.8		1.4	12.5	11.1	75.0
monosyllables	buey	6.9	5.6	13.9	73.6				62.5	23.6	6.9	6.9		16.7	48.6	18.1	16.7
	flor	1.4	2.8	13.9	81.9				76.4	19.4	4.2			20.8	66.7	5.6	6.9
	miel	73.6	12.5	8.3	5.6				8.3	47.2	25.0	19.4		9.7	25.0	29.2	36.1
	sol	22.5	15.5	9.9	52.1				38.0	26.8	18.3	16.9		31.0	29.6	25.4	14.1
			95.8	1.4	1.4	1.4				1.4	32.4	18.3	47.9		11.4	25.7	62.9
test words	chanocho	98.6	1.4												15.7	10.0	74.3
	cielo	97.2	1.4		1.4									2.8	12.5	84.7	4.2
	explosión	1.4	12.5	9.7	76.4				73.6	13.9	2.8	9.7		1.4	9.7	9.7	79.2
	chagüite	53.5	16.9	2.8	26.8				23.9	18.3	12.7	45.1					
Tris. in -e	mama	79.2	15.3	1.4	4.2				25.0	62.5	5.6	6.9					
	comité	5.6	6.9	2.8	84.7				55.6	11.1	16.7	16.7					
vowel		80.6	13.9	5.6					22.2	69.4	4.2	4.2					
stressed vowel		34.6	14.4	7.6	49.8	15.4	6.4	5.6	72.6	52.4	24.0	8.9	18.3	11.5	22.8	15.1	51.8
		33.4	10.1	4.2	29.8	16.5	5.7	2.6	22.0	27.4	17.2	6.4	20.7	13.0	16.7	7.4	26.0
	N:	28	30	27	28	5	5	5	5	23	24	24	22	17	19	19	19

TABLE 5B Distribution by Words Excluding CASA Group - Main Diminutives Only: Written Task

Category	Word	ito				[sito]				[esito]				
		1	2	3	4	1	2	3	4	1	2	3	4	
Dis. in -e	chiche	12.5	1.4		86.1	27.8	4.2	1.4	66.7					100.0
	diente	13.9	43.1		43.1	84.7	8.3		6.9					100.0
	pene	6.9	18.1	1.4	73.6	77.8	2.8		19.4					100.0
ending in -d	césped	5.5	5.5		89.0	56.9	4.2		38.9	1.4	1.4	1.4		95.8
	salud	2.8	1.4		95.8	37.5			62.5		1.4			98.6
	solicitud	5.6			94.4	20.8			79.2	1.4				98.6
	vecindad	1.4			98.6	15.3			84.7					100.0
ending in -l	burdel	83.3	5.6	1.4	9.7	11.1	34.7		54.2			4.2		95.8
	corresponsal	61.1	2.8		36.1	8.3	4.2		87.5					100.0
ending in -n	fustán		2.8		97.2	90.3			9.7					100.0
	salpicón				100.0	84.7			15.3			1.4		98.6
ending in diphthong	cegua	76.4	2.8	1.4	19.4				100.0	4.2	9.7			86.1
on/ona, or/ora	pintor	1.4	1.4	1.4	95.8	87.5	4.2		8.3			2.8		97.2
in other consonants	álbum	1.4	6.9		91.7	90.3	1.4		8.3			2.8		97.2
	almíbar	20.8	6.9		72.2	52.8	6.9		40.3					100.0
monosyllables	bar		4.2		95.8	94.4			5.6			9.7		90.3
	pan	2.8	4.2	1.4	91.7	76.4	13.9	1.4	8.3	18.1	27.8	2.8		51.4
	red	1.4	5.6		93.1	34.7	9.7		55.6	41.7	11.1			47.2
	rey		4.2		95.8	80.6	4.2		15.3	8.3	12.5			79.2
	té				100.0	90.3	4.2		5.6	4.2	12.5	1.4		81.9
special ending	tijeras	97.2	1.4		1.4		4.2		95.8	1.4	1.4			97.2
Tris. in -e	árabe	38.9	2.8		58.3	27.8	5.6	1.4	65.3					100.0
	juanete	50.0	5.6		44.4	12.5	6.9		80.6					100.0
stressed vowel	buscapié				100.0	59.7	1.4		38.9	1.4	6.9	1.4		90.3
	tabú	9.7	1.4		88.9	61.1			38.9					100.0
	means:	25.9	6.4	1.4	74.9	55.8	7.1	1.4	43.7	9.1	7.5	1.7		92.2
	std dev:	31.8	9.4	0.0	30.9	30.6	7.8	0.0	32.4	13.4	7.3	0.7		14.2
	N:	19	20	5	25	23	17	3	25	9	14	4		25

TABLE 6 Definitions of Special Column by Word: Written Task
(For Tables 2B, 3B, 5B, 2C and 3C)

Word	Special form		
	ito	[sito]	[esito]
ending in -d césped salud vecindad solicitud			cespecito salucita vecindacita solicitucita
in other consonants álbum almíbar	almibítar		albuncito
monosyllables té			tesesito
special ending tijeras	tijerita		
stressed vowel buscapié			buscapiesesito

Chapter V: Analysis

In the previous chapter I presented a detailed account of the results obtained in the survey. In this chapter, I will develop an analysis of diminutive allomorphy selection in Nicaraguan Spanish within the framework of Optimality Theory based on the conclusions and generalizations drawn from the survey results. The advantages of the present analysis with respect to the previous literature on diminutive formation are twofold: First, it is the only analysis so far to be based on a survey designed specifically to research diminutive formation in Spanish. Secondly, the analysis developed here has more explanatory power than its predecessors. It is not only an account of the general facts regarding diminutive formation in Nicaraguan Spanish, but it is also an account of the different levels of acceptance (variability) observed in certain categories of words in terms of a historical change in the constraints defining the stem of diminutivization. This change in the constraints that define the stem for diminutive formation leads us in turn to an explanation of dialectal variation, mainly in the diminutivization of monosyllabic words never taken into consideration in previous analyses, and to an explanation of the puzzling status of disyllabic words ending in /e/. Thus, the analysis presents a description and explanation not only of diminutivization in Nicaraguan Spanish, but also of diminutivization in Spanish in general.

This chapter is organized as follows: In the first section, I repeat and summarize the general conclusions drawn from the survey and present a **description** of the facts to guide us to what needs to be accounted for and in what order. In the second section, I present a brief summary of Optimality Theory and some important general background

information about Spanish. In section 3, I introduce and develop a constraint-based account of diminutivization as a general process including special cases and irregularities.

1. Descriptive Account of Diminutivization in Nicaraguan Spanish

In the previous chapter, we saw that there was a clear tendency, with very few exceptions, for phonologically defined category of words to select one diminutive as the preferred one. The preferred diminutive per word category relation is summarized and presented again in the table that follows. When reading the table, it is important to keep in mind the following:

- The alternatives for words ending in /e/ (disyllabic and longer) were $-\text{[ito]}$ and $-\text{[sito]}$; that is, the base was taken as incorporating the word final /e/, such that $-\text{[esito]}$ as a diminutive affix was not possible.
- $-\text{[esito]}$ was an option (in the oral task) or came up as an option (in the written task) only for words ending in consonants (*/syudadesíta/* > */syudád/*, *ciudad*, 'city'), monosyllables (*/myelesíta/* > */myél/*, *miel*, 'honey'), words ending in hiatus or diphthongs (*/radyesíto/* > */rádyo/*, *radio*, 'radio'), and words ending in $-\text{ón/ona}$, $-\text{or/ora}$ (*/yoronesíta/* > */yoróna/*, *llorona*, 'crybaby').³⁵

³⁵ I will argue for the existence of only two diminutive allomorphs, $-\text{[ito]}$ and $-\text{[sito]}$, with the /e/ appearing before $-\text{[sito]}$ in some words analyzed as an epenthetic vowel with no morphological affiliation. /e/ is epenthesized before the diminutive suffix in order to avoid violations of base-subminimality or to avoid violations of faithfulness of the output to the syllabic structure of the base (see discussion on pp. 110-112).

- *Hiato-íto* was an option only for words ending in hiatus or diphthongs in the oral task (*/pwesiíta/* > */pwesía/*, *poesía*, 'poetry'). The options for these words included: *-[íto]*, *-[esito]*, and *hiato-íto*.³⁶

Preferred Diminutive by Word Category³⁷

Diminutive		<i>-[íto]</i>	<i>-[sito]</i>	<i>-[esito]</i>	<i>Hiato-íto</i>
W o r d C a t e g o r y ³⁸	Monosyllables	Miel (weak rejection of <i>-[sito]</i>)	Buey Flor Sol Bar Pan Rey Té (strong rejection of <i>-[íto]</i> for all)	Red (strong rejection of dim.)	
	Dis. In -e	Chingue (weak rejection of <i>-[sito]</i>)	Catre Liendre Molde Monte Naípe Chiche Diente Pene Punche (weak rejection of <i>-[íto]</i>)		
	Tris. In /e/	Árabe (<i>-[sito]</i> highly accepted) Juanete			

³⁶ Recall that *hiato-íto* refers to the option of selecting the diminutive form *-[íto]* but keeping the initial /i/ of the diminutive as a separate, onsetless syllable. It contrasts with regular *-[íto]* in which the initial /i/ of the suffix is syllabified across morphological junctures as the nucleus of the base rightmost consonant:

[pwe.sí.a] > [pwe.si.i.ta] hiato-íto
> [pwe.sí.ta] *-[íto]*

³⁷ Words are given in normal Spanish orthography. For their phonemic transcriptions, please refer to Appendix VIII: Phonetic Transcription and Translation of Words Included in Final Survey, pp. 196-197.

³⁸ Word categories are the same as defined in Chapter III, section 3.1 Words Included in the Pilot Study, pp. 49-53, and as labeled in Table 1 Classification of Words in Categories, p. 84.

Preferred Diminutive by Word Category

Diminutive		-[ito]	[-sito]	-[esito]	Hiato-ito
W O R D C A t e g o r y	Ending in -n		Abdomen Fustán Salpicón		
	Ending in -d		Ataúd Ciudad Césped Salud Solicitud Vecindad (strong rejection of dim. for all)		
	Ending in -l	Burdel Corresponsal	Débil Túnel		
	In other consonants		Album Almíbar (-[ito] w/displacement of /r/ weakly rejected)		
	On/ona, or/ora		Llorona Pintor		
	Special ending	Tijeras (w/ displacement of /s/)			
	Ending in hiatus				Panadería Poesía (strong rejection of dim. for both)
	Ending in diphthong	Balneario Farmacia Radio Cegua (-[esito] second best option for all)			
	Stressed vowel	Papá (selection of dim. might be due to pragmatics)	Comité Buscapié Tabú		
	Vowel	Mama			

Besides the conclusions that can be drawn from the data in this table, it must also be remembered that disyllabic or longer words that end in /a/ or /o/ were excluded from the survey given their predictable diminutive selection of *-[ito]*:

[kása]	>	[kasíta]	from <i>casa</i> , 'house'
[móno]	>	[moníto]	from <i>mono</i> , 'monkey'
[maléta]	>	[maletíta]	from <i>maleta</i> , 'suitcase'
[kokodrílo]	>	[kokodrílito]	from <i>cocodrilo</i> , 'crocodile'

Let me begin the descriptive analysis of diminutivization by making four general observations. First, diminutivization is clearly a suffixation process. Diminutive affixes are attached to the rightmost edge of the words or bases that undergo the process. Secondly, the main stress of diminutivized forms always falls on the penultima syllable. Third, *-[esito]* does not seem to be justified as another diminutive allomorph given the distribution seen in the Preferred Diminutive by Word Category table. Fourth, diminutivized words all end in an unstressed [+back, -high] vowel (/a/, /o/) which corresponds to the default morphological gender markers in Spanish.

According to the characteristics of the word/base to which each one of the diminutive allomorph is attached, the general diminutive distributional pattern seems to be the following:

Diminutive Allomorph Selection According to the Base

	-[ito]	-[sito]	-[esito]	Hiato-íto
B A S E S	final unstressed vowel	monosyllabic		hiatal /V+V/ ending
	final tautosyllabic /V+V/ sequence; disyllabic or longer	disyllabic ending in /e/		
	'special' final /s/	consonant-final (including words ending in ón/ona, or/ora)		
		final stressed vowel		

As seen in the previous table, in order to correctly characterize and distinguish the bases it is necessary to refer to three factors:

- i. length or size (distinctions between monosyllabic, disyllabic or longer);
- ii. syllabic affiliation of the rightmost element(s) (distinctions between final hiatal or tautosyllabic vowel sequences, final consonants -syllable codas-, or final vowels -syllable nuclei-), and;
- iii. characteristics of the final vowels with regards to stress and to their phonetic and/or morphological features (distinctions between stressed and unstressed vowels, and between unstressed final /a/, /o/, and /e/).

The interaction of these three factors, all phonological in nature, define the stems to which diminutivization applies and determine the selection of the diminutive allomorph.³⁹

³⁹ **Base** refers to the unaffixed surface form. **Stem** is the part of the base prosodically determined to which diminutive allomorphs attach.

1.2 Role of the Characteristics of Base-Final Vowels

So far, I have simplistically labeled the diminutive options as invariably ending in /o/: *-[ito]*, *-[sito]*, *hiato-íto*. However, this has only been a naming device. Diminutivized forms must end in unstressed /a/ or /o/, the default gender markers in Spanish. The general situation is that a feminine base (noun or adjective) will end in /a/ when diminutivized. On the other hand, a masculine base (noun or adjective) or neutral base (adverb) will end in /o/ when diminutivized. This situation holds true independently of whether the base for diminutivization has or does not have such a vowel, i.e. words ending in a consonant, in any stressed vowel, or in other unstressed vowels different than /a/, /o/ (mainly /e/):

[flor]	>	[florsíta]	'flower' (fem.)
[bar]	>	[barsíto]	'bar' (masc.)
[lyéndre]	>	[lyendresíta]	'nit' (fem.)
[dyénte]	>	[dyentesíto]	'tooth' (masc.)
[tabú]	>	[tabusíto]	'taboo' (masc.)

The location of these *gender* vowels at the end of the diminutive follows from general concatenative morphology order in Spanish. (Varela 1990)

The striking fact is that when a base to which diminutivization applies ends in a "marked" /a/ or /o/ not corresponding to the default relations /a/ = feminine, /o/ = masculine, the irregularity is usually carried on to the diminutive:⁴⁰

[poéma]	>	[poemíta]	'poem' (masc.)
[fóto]	>	[fotíto]	'photo' (fem.)

⁴⁰ This type of word was not included in the survey given their predictable diminutive forms with *-[ito]*.

All this points to the fact that final unstressed back vowels independently of their morphological affiliation, be it correlated to gender or not, are part of the stem to which diminutive suffixes attach. If a base unstressed final vowel corresponds to one of the morphological gender markers ([+back, -high] vowel) the diminutive form will retain it. If the base final vowel does not correspond to one of the morphological gender markers, i.e. it is a stressed vowel or unstressed vowel different than /a/, /o/, or if the base ends in a consonant, the diminutive form will supply a default vowel corresponding to the gender of the base (/a/ for feminine, /o/ for masculine). Given the concatenative morphology order in Spanish, a base-final unstressed /a/ or /o/ will be relocated always at the end of the diminutivized form, and a supplied default /a/, /o/ will also appear always at the end of the diminutivized form. This accounts for the observable result that all diminutivized forms end either in /a/ or in /o/.

1.3 Stem Size

An interesting issue is what happens to a base-final vowel when it is other than unstressed /a/, /o/. Does the diminutive form retain it or not? The results show that it depends on the size of the base and on whether the base-final vowel is stressed or not.

Any stressed final vowel of a base is retained in the diminutive, independently of the length of the base:

[té:]	>	[te:síto]	'tea'
[tabú]	>	[tabusíto]	'taboo'
[komité]	>	[komitesíto]	'committee'

However, final unstressed /e/ is preferably lost in trisyllabic and longer bases, but retained in disyllabic ones:

[kátre]	>	[katresíto], *[katrito]	'camp bed'
[árabe]	>	[arabíto] preferred, [arabesíto] also accepted	'(an) Arab'

There must be some condition on the size of the stem that the presence of /e/ helps to fulfill in shorter than trisyllabic words. The deletion versus retention pattern of base-final unstressed /e/ makes evident the requirement that the stem must be at least disyllabic. This would explain why disyllabic bases must retain the final /e/ but trisyllabic or longer bases need not.

Interestingly enough, two of the disyllabic words ending in /e/ included in the survey show a high acceptance of -[íto] diminutive forms, thus deleting the base-final unstressed /e/, [lyéndre] and [punče], and one word actually selected this diminutive as the optimal one, [čínge].⁴¹ These three words have in common that they all have a heavy, bimoraic initial syllable.

This hints towards the possibility of having a less restrictive size requirement on the stem of diminutivization: stems must be at least bimoraic. Diminutivization of monosyllabic words provides strong supporting evidence.

Almost all monosyllabic content words in Spanish are of the shape CVC, or CVVC, bimoraic syllables, and the survey results indicate a clear preference of these words for -[sítto], an irrefutable piece of evidence that bimoraicity is enough to satisfy a

⁴¹ See Table 3A Distribution by Words: Oral Task on page 88.

size requirement imposed on the stem of diminutivization. Otherwise, if the requirement were that the stem be minimally disyllabic, these words would show an epenthetic base-final /e/ in their diminutivized forms, as seems to be the case in Peninsular Spanish (see discussion of previous literature in Chapter II):

Base	Stem = bimoraic	Diminutive
[pán.]	pan.-	> [pa.n.sí.to.] 'bread' ⁴²
Base	Stem = disyllabic	Diminutive
[pán.]	pa.n.-[e]	> [pa.ne.sí.to]

It is important to note that these diminutive forms are not highly rejected. They are, in fact, the second best option. Therefore, both requirements, bimoraicity and disyllabicity of the stem, play an active role in diminutivization. Synchronically, the less restrictive one seems to be winning over disyllabicity given its determinant role in the diminutivization of monosyllabic bases and its intrusive role in the diminutivization of disyllabic bases ending in /e/.

Under this analysis, the few existing monosyllabic bases of the shape CV that undergo diminutivization must be analyzed as having a long final vowel to account for the bimoraicity requirement:

Base	Stem		Diminutive	
[té:]	té:-	>	[te:síto]	'tea' ⁴³

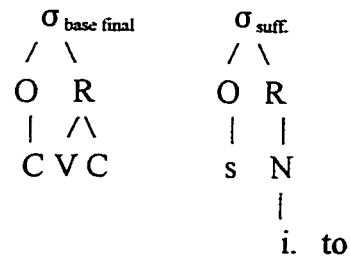
⁴² "-" represents the right edge of a stem, and "[...]" represents a prosodic word.

⁴³ If the base had to be disyllabic, the preferred form would be [tesesíto]. 1.1% of those surveyed selected this option as the preferred one (see **Table 3B** on page 89). Note that in this form in particular, the /s/ appearing before -[esito] would have to be analyzed as epenthetic (see discussion on page 67).

1.4 Syllabic Affiliation of the Base Final Elements

On the other hand, the pattern of diminutive forms for monosyllabic words points out the relevance not only of the size of the stem, but also of the syllabic affiliation of the base rightmost element(s). Given that almost all monosyllables are closed syllables, i.e. they end in a moraic consonant, they choose $[-\text{sito}]$ as the preferred diminutive because it is the only option that respects the syllabic affiliation of the base-final consonant as a moraic coda. In this respect, they pattern together with all consonant-final bases, including derived words such as $[\text{yoróna}] > [\text{yóronsíta}]$, which must be analyzed as forming the diminutive from the consonant-final stem $[\text{yorón}]$, as explained in 2.7 in the previous chapter (pp. 78-79):

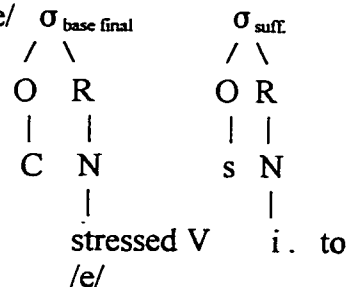
Consonant-final bases



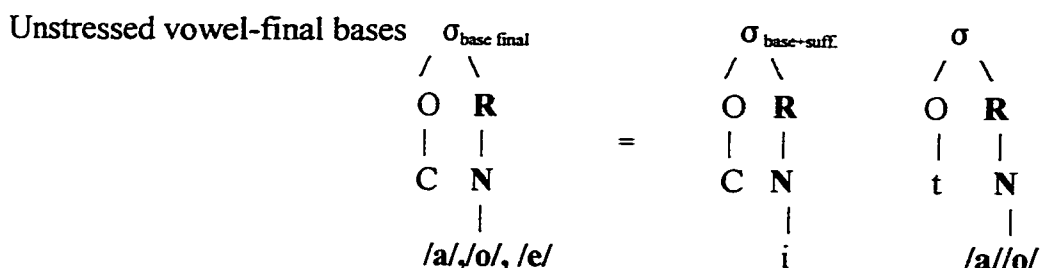
Stressed vowel-final bases and disyllabic bases ending in $/e/$ will pattern together with consonant-final and monosyllabic bases in selecting $[-\text{sito}]$ in order to respect the syllabic affiliation of the base-final vowel as the nucleus of its syllable:

Stressed vowel-final bases

Disyllabic bases ending in $/e/$

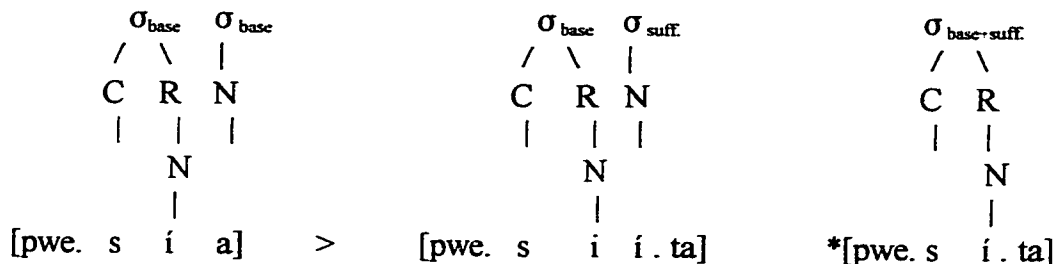


Unstressed vowel-final bases when preceded by a consonant, on the contrary, choose $[-ito]$, but they do so also to respect the onset affiliation of the preceding consonant that is left hanging without a nucleus once the unstressed final vowel is relocated at the end of the diminutivized word (if $/a/$ or $/o/$), or once the unstressed final vowel (if $/e/$) is deleted in trisyllabic or longer words:



In sum, diminutivization will try to be as respectful as possible of the syllabic structure of the final syllable of the base. $[-ito]$ will be chosen when the syllabic structure of the rightmost syllable of the base calls for a nucleus, and $[-sito]$ will be chosen otherwise.

Faithfulness to the syllabic structure of the base-final syllable accounts also for the diminutivization pattern of bases ending in a diphthong and bases ending in hiatus. Diminutivization of words ending in hiatus is straightforward. They form the diminutive by selecting the option *Hiato-íto*. This option retains the hiatal structure of the base by making the initial $/i/$ of the suffix fill the nucleus of the onsetless final syllable of the base:



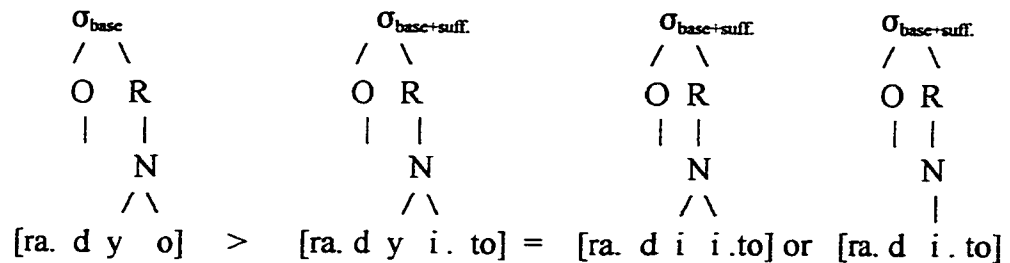
However, Spanish does not like onsetless syllables. Given that diminutivization is characterized by its respect of the syllabic structure of the base, it is not surprising that diminutivization of words ending in hiatus is highly rejected, as noted in the table at the beginning of the chapter.

Similarly, words ending in a diphthong will also choose the diminutive that best respects the branching nucleus of the final syllable of the base, $[-\text{ito}]$. The initial $/i/$ of the suffix occupies the rightmost nucleic position; that is, it becomes the second element of the tautosyllabic $/V+V/$ sequence:



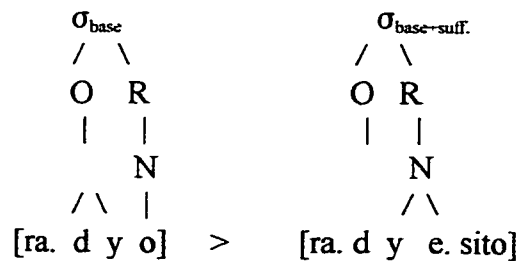
Diminutivization of words in which the first segment of the sequence is the glide $/y/$ are opaque because Spanish disallows adjacent glides and high vowels agreeing in backness (Harris 1983) and one cannot judge from the results exactly how this conflict is resolved. Diminutivized forms simplify the sequence $*[\text{yi}]$ by deleting the less sonorous element: $*[\text{yi}] > [\text{i}]$. The result is that the diminutive $[-\text{ito}]$ satisfies only partially the syllabic requirement in these cases because the diphthong is simplified to a single vowel.

However, the question remains of whether this simplification actually involves a simplification of a branching nucleus to a non-branching one, or whether the remaining single vowel segment is realized as a long vowel:



The $-\text{[sito]}$ option would cause more violations of the syllabic structure of the final syllable of the base: in the example with $[\text{ra.dy}o]$, the onset $/d/$ would have to become a coda, and the nucleus position would also be lost.

The only other satisfactory option for words ending in a diphthong in regards to retaining their final syllable structure is epenthesis before the suffix $-\text{[sito]}$:



As the results show, this was in fact the second best option for this type of word, indicating that for some reason epenthesis is less favorable than simplifying the diphthong. This might be explained if the simplification of $*[\text{yi}]$ to $[\text{i}]$ is really from $*[\text{yi}]$ to $[\text{i:}]$.

1.5 Status of /e/ and Diminutive Allomorphs

So far I have discussed five types of cases where an /e/ appears before the diminutive suffix *-[sɪto]*:

- a. In disyllabic bases ending in /e/.
- b. In the second diminutive option of trisyllabic or longer bases ending in /e/.
- c. In bases ending in stressed /e/.
- d. In the second diminutive option of monosyllabic consonant-final bases.
- e. In the second option of bases ending in a diphthong.

In **a**, **b**, and **c**, the /e/ is actually part of the base and the question is whether it is retained or lost in the diminutivized forms (i.e. in the stems). On the other hand, the [e] in **d** and **e** was analyzed as epenthetic.

For cases like **a**, the retention of the base-final /e/ is required to satisfy the bimoraic length constraint imposed on the stems that undergo diminutivization (i.e. stem = base).

For cases like **b**, retention of the base-final /e/ is no longer necessary to satisfy the size constraint, and indeed, it is lost in the preferred diminutive forms. However, diminutivized forms that retain it are highly accepted as second options. Deletion of the base-final /e/ is better than retaining it (stem does not include base-final /e/).

In **c** the stressed final /e/ of the base is retained as are all other stressed final vowels of bases that undergo diminutivization.

In **d** epenthesis of /e/ was justified to augment the stem to fulfill the more restrictive constraint that the stem be minimally disyllabic, constituting not the preferred

option of diminutivization, but the second best. The preferred option does not involve epenthesis because it relies on the fact that monosyllabic stems are heavy syllables conforming to the bimoraicity requirement. Furthermore, the preferred option faithfully respects the syllabic affiliation of the base-final consonant as a coda. $[-[ito]$ variants with monosyllabic words are rejected. Both forms, the one involving epenthesis ($[-[esito]$) and $[-[ito]$ forms, do not respect the coda status of the base-final consonant. Therefore, the reason for accepting the former but not the latter must be that the epenthetic forms at least satisfy the disyllabicity requirement on the stem while $[-[ito]$ forms do not:

Base	Diminutive
[pán.]	[pan.-sí.to.] stem = bimoraic
	[pan-[e].sí.to.] stem = disyllabic
	*[pa.n-í.to.] stem \neq bimoraic or disyllabic

In e epenthesis of /e/ was justified as a second alternative that allows the diminutivized word to respect the syllabic structure of the base (a branching final nucleus). $[-[ito]$, the preferred alternative, simplifies the diphthong to a single vowel when the first element of the diphthong is the glide /y/. It is not clear whether the resulting single vowel is actually bimoraic or not, but it must be in order for simplification to be preferred over epenthesis.

The important fact is that the presence of /e/ needs independent justification only when it is not present in the non-diminutivized forms (i.e. in the base), that is, it needs to be justified only in the cases where it is epenthetic. As we have seen, these cases are reduced to two (d and e above) and, in the best of cases, epenthesis is only rated second

best. Therefore, positing a whole distinct diminutive allomorph of the form *-[esito]* is unjustifiable.

1.6 Independent Conditions on Well-formedness

There is yet one other case where *[e]* appears. In the group of monosyllabic bases the word *red*, 'net', stands out as the only one whose preferred option involves epenthesis:

[reð] > [reðesíta]

This word patterns with words ending in */d/* in that they have a high percentage of rejection of diminutivization as noted in the discussion of the results of words ending in */d/* and monosyllables in the previous chapter (p. 74 and pp. 79-81 respectively).

However, longer than monosyllabic words ending in */d/* pattern with all consonant-final bases in selecting *-[sito]* in order to keep the coda affiliation of the final consonant. The high rejection of diminutivization observed in all the final */d/* bases might be a result of a restriction on adjacent *[+continuant]* consonants given fricativization of */d/* to *[ð]* in syllable-final position.⁴⁴ In fact, final */d/* bases tended to lose the final */d/* completely when diminutivized (see section on stem-changing diminutive forms in Chapter IV, pp. 66-68). This deletion circumvents the constraint on *[+cont.]* adjacent consonants.

While a base-final */d/* might be omitted in the stems of longer words, it must be pronounced entirely in monosyllabic ones to comply with the bimoraicity requirement. Thus, the explanation of why *-[sito]* is not as good for monosyllabic *red* as it is for longer

⁴⁴ Crowhurst 1992 formalizes this constraint only for Mexican Spanish to explain why words ending in */l/* do not take *-[sito]*. However, Harris 1994 questions the validity of */l/* being *[+cont.]* and */r/* *[-cont.]*

Well-formedness condition

**[+cont.] [+cont.]* (Crowhurst 1992: 234)

words relies on the former's need to obligatorily contain the final /d/ which cannot be adjacent to a following /s/. Therefore, an /e/ is epenthesized and preferred only in monosyllabic *red*.

Another plausible explanation for epenthesis in *red* is the competition between the size requirements on the stem. The diminutive form [*reδ-[e]sita*] might be a remnant of the requirement that the stem be disyllabic in the group of monosyllabic words. This would also explain why epenthesis is preferred over a third alternative with *-[ito]*. [*re.ði.ta*] is totally rejected because stem [*re.δ-*] is neither bimoraic nor disyllabic. The rejected form [*re.ði.ta*] contrasts with the preferred form [*mye.li.ta*] from monosyllabic [*myel*] 'honey' probably because the stem [*mye.l-*] complies with the bimoraicity requirement whereas [*reδ-*] does not.

The *[+cont.] [+cont.] condition could also explain why *miel* is left alone under the monosyllabic words that prefer *-[ito]* if /l/ is taken as [+cont.]. The otherwise preferred *-[sito]* would not obey the condition. In this case, *-[ito]* is preferred over epenthesis and *-[sito]* forms are demoted to second options. Epenthesis is disfavored even when *-[sito]* violates the condition on [+cont.] adjacent consonants.

*[+cont.] [+cont.] has also an effect on longer words ending in /l/. As can be seen in the table at the beginning of this chapter, only two words out of four (50%) ending in /l/ opted for *-[sito]*. The other two preferred *-[ito]* overriding the violation of the well-formedness condition on adjacent [+cont.] consonants. Epenthesis is, again, disfavored as in monosyllabic *miel*.

In sum, a condition disallowing adjacent [+cont.] consonants explains the general rejection of diminutivization of words ending in /d/ and the irregular behavior of monosyllabic *red*. If /l/ is considered [+cont.], this condition could also explain the irregular behavior of *miel*, as well as the ambiguous pattern of longer words ending in /l/. However, the effect of this condition produces ambiguity of diminutive selection and a tendency to reject diminutivization rather than total rejection of the otherwise preferred diminutive option, -[sito].

Let us turn now to the case of words with special endings to end the descriptive part of the analysis.

1.7 Words with Special Final /s/

The survey included only one word under this category, the word *tijeras*, in which the final /s/ has an ambiguous status as a non-morphological segment and as a morphological marker of plurality given that *tijeras* does not have a singular counterpart. Another word like *tijeras* is *pantalones*, 'pants', and there are also a few proper names that end in /s/ like *Carlos*, *Mercedes*, *Lourdes*.

As shown in the tables at the beginning of this chapter, these words take -[ito] and displace the final /s/ to the end of the diminutivized form after the unstressed /a/ or /o/ correlated with gender, as concatenative morphology will dictate for the plural marker /s/. Clearly then, this special /s/ is analyzed as, or taken as analogous to, the plural marker. The base for diminutivization must be, in the specific case of *tijeras* [*tiher+A+s*], so that both, the vowel /a/ and the consonant /s/ are relocated at the end of the diminutive form.

1.8 Summary

Any adequate analysis of diminutivization in Nicaraguan Spanish must in principle account first for the most general observable facts, and at least for the general distributional pattern of diminutive allomorph selection drawn from the survey results. An even more adequate analysis is one that is also able to account for the variability and irregularities observed in the process. Here I present a summary of what needs to be accounted for based on the previous description of the distributional pattern of diminutive allomorphy drawn from the survey.

General Facts

1. Diminutivization is a suffixation process.
2. Main stress always falls on the penultima syllable in diminutivized forms.
3. Diminutivized words always end in an unstressed [+back, -high] vowel (/a/, /o/).

General Allomorph Distribution

4. The selection of diminutive allomorphs depends at least on three characteristics of the base to which they are related:
 - a. its size
 - b. the syllabic affiliation of its last syllable
 - c. the characteristics of its final vowels with regards to stress and their phonetic/morphemic features.
5. The results of the interplay between a, b, and c above produce the following distributional pattern of **preferred** diminutive allomorphs:
 - i. monosyllabic bases select -[sito]

- ii. consonant-final bases select $-\text{[sito]}$
- iii. disyllabic bases ending in unstressed /e/ retain it and select $-\text{[sito]}$
- iv. trisyllabic and longer bases ending in unstressed /e/ lose it and select $-\text{[ito]}$
(deletion of base-final /e/ is better than retaining it)
- v. bases ending in unstressed /a/ or /o/ select $-\text{[ito]}$
- vi. bases ending in any stressed vowel retain it and select $-\text{[sito]}$
- vii. bases ending in a diphthong select $-\text{[ito]}$ (simplifying the diphthong is better than epenthesis)
- viii. bases ending in a hiatus select *hiato-íto*
- ix. bases ending in special /s/ select $-\text{[ito]}$

Variability

- 6. Some categories of words accept also "second options":
 - i. monosyllabic bases accept $-\text{[sito]}$ with an epenthetic [e] before the suffix, but reject $-\text{[ito]}$
 - ii. disyllabic bases ending in unstressed /e/ that have initial heavy, closed syllables lose the base-final /e/ and accept $-\text{[ito]}$
 - iii. trisyllabic and longer bases ending in /e/ retain their final /e/ and accept $-\text{[sito]}$
 - iv. bases ending in a diphthong accept $-\text{[sito]}$ with an epenthetic [e] before the suffix.

Irregularities

- 7. Bases ending in hiatus tend to reject diminutivization.
- 8. Bases ending in /d/ tend to reject diminutivization.

9. The word *red* 'net' prefers $[-\text{sito}]$ with an epenthetic $[\text{e}]$ before the suffix rather than $[-\text{sito}]$. It rejects $[-\text{ito}]$ forms.
10. Some words ending in $/\text{l}/$ prefer $[-\text{ito}]$ rather than $[-\text{sito}]$. These forms reject epenthesis.

2. Diminutive Allomorphy: A Case of Constraint Interaction

In what follows, I will propose an account of Nicaraguan Spanish diminutivization within Optimality Theory (OT) (Prince and Smolensky 1993) and its interaction with Prosodic Morphology (McCarthy and Prince 1994 a, b).

Diminutivization will be explained more precisely within the sub-theories of Correspondence (McCarthy and Prince 1994a) and Generalized Alignment (McCarthy and Prince 1993). Generalized alignment in particular applies Optimality Theory to processes that lie in the morphology-phonology interface, to "all the various ways that constituents may be enjoined to share an edge in prosody and morphology" (p. 1).

First, I will summarize the major tenets of Optimality Theory focusing on the principles and constraints that will be important for the account of diminutive allomorph selection in Nicaraguan Spanish. This will be followed by a brief summary of Spanish syllabification and stress rules within OT that will serve as important background information.

2.1 An Overview of Optimality Theory

Within an OT framework, linguistic processes (phonological, morphological, and syntactic) are seen as processes of evaluation of outputs with respect to constraints. The

constraints are members of a universal set (called CON) and are **violable in principle**. They are also **crucially ranked** with respect to each other. Language variation is explained as languages having different ranking of the same set of universal constraints.

In a given process, GEN (a 'generator' considered a fixed part of Universal Grammar) will produce a set of candidate outputs. A function EVAL then evaluates each of them with respect to the given hierarchical ranking of constraints in that language. The output selected by the grammar will be that which is the most optimal or *harmonic* with respect to the constraint violations incurred compared to the rest of possible candidates. Given the hierarchical ranking, an output which violates several lower ranking constraints will be optimal compared to one which violates only one higher constraint. The grammar (through EVAL) resolves conflicts between constraints in a "strict dominance hierarchy" (Prince and Smolensky 1993). The function **EVAL works in parallel**; it evaluates all the candidates generated by GEN in one step. The Input-Output map does not have an internal serialized structure. OT is output-oriented.

Given that OT is output-oriented, a natural question is what delimits the set of possible inputs. The concept of **Lexicon Optimization** provides a mechanism to identify the best input from the output:

***Lexicon Optimization.** Suppose that several different inputs I_1, I_2, \dots, I_n when parsed by a grammar G lead to corresponding outputs O_1, O_2, \dots, O_n , all of which are realized as the same phonetic form ϕ - these inputs are all phonetically equivalent with respect to G . Now one of these outputs must be the most harmonic, by virtue of incurring the least significant violation marks: suppose this*

optimal one is labelled O_k . Then the learner should choose, as the underlying form for ϕ , the input I_k . (Prince and Smolensky 1993: 192)

Lexicon Optimization evaluates the input-output pairs by examining the violations incurred by the winning output with respect to its proposed inputs. The pair that has the fewest violations is the optimal, thus selecting an input from the output. Lexicon optimization generally "favors analyses that minimize deep/surfaces disparities, and that maximize faithful parsing" (Prince and Smolensky 1993: 194)

What has been described so far is sub-summed under the four principles that constitute the core of Optimality Theory (from McCarthy and Prince 1993):

- a. Violability: all constraints are violable in principle.
- b. Ranking: constraints are in a hierarchical ranking relationship. This relationship is language-particular.
- c. Inclusiveness: the set of candidates are admitted by general considerations of structural well-formedness.
- d. Parallelism: There is no serial derivation. Evaluation of the constraint hierarchy is done over the whole set of constraints and the whole set of candidates at once.

Another important principle is **Constituency of Exponence** which means that "the lexical specifications of a morpheme (segments, prosody, or whatever) can never be affected by Gen. In particular, epenthetic elements posited by Gen will have *no* morphological affiliation, even when they lie within or between strings with morphemic identity." (McCarthy 1993: 9)

The constraint hierarchy and evaluation of outputs provided by GEN is illustrated in constraint tableaux. In a constraint tableau, constraints are organized by rank order, and violations are marked by an asterisk "*". A fatal violation, that is, a violation that makes a candidate output lose against others being evaluated, is marked by an asterisk followed by an exclamation point "*!". After a fatal violation, the remaining cells of the candidate are shaded to indicate that the evaluation of that specific candidate with respect to the remaining constraints is irrelevant. The cells of a winner's candidate are also shaded when there are no more competitors. A symbol \blacktriangleright indicates the winning candidate of a candidate set:

A >> B

Input	Constraint A	Constraint B
\blacktriangleright candidate 1		
candidate 2	*!	

This tableau indicates that Constraint A **dominates** Constraint B: A >> B. Therefore, candidate 1 is the optimal or more harmonic although it violates Constraint B because candidate 2 violates the higher-ranked Constraint A. It is also possible to find constraints that are not in a dominance relationship; that is, constraints that are not ranked with respect to one another. In this case, the constraints are separated by a comma, rather than by the notational symbol ">>", and the line that divides them in the constraint tableaux is not continuous:

A, B >> C

Input	A	B	C

There is also the possibility of having a constraint that is undominated with respect to the other constraints being considered. A darker line is used to separate ungoverned, higher-ranked constraints from the others in a hierarchy:

A is ungoverned and dominates B >> C

Input	A	B	C

Within OT multiple or gradient violations of constraints are also possible. When this happens, the candidate which **minimally** violates the constraint is chosen over the other(s):

Input	Constraint A	Constraint C
candidate 1	*	*
candidate 2	**!*	*

Two important sub-theories of OT, Correspondence and Generalized Alignment, must also be discussed.

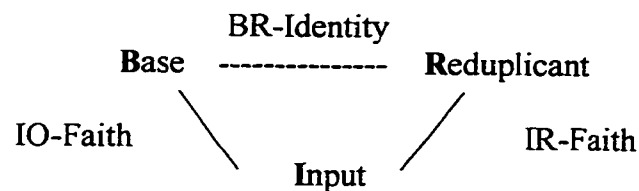
Correspondence is a family of constraints that refer to the faithfulness relations between any pair of representations: input and output, base and reduplicant, base and output forms, etc.:

Correspondence

*Given two strings, S_1 and S_2 , related to one another as reduplicant/base, output/input, etc., **correspondence** is a function f from any subset of elements of S_2 to S_1 . Any element α of S_1 and any element β of S_2 are **correspondents** of one another if α is the image of β under correspondence; that is $\alpha = f(\beta)$. (McCarthy and Prince 1994a: B3)*

The constraints on correspondent elements might be different in terms of the specific relation involved, i.e. there could be different MAX constraints for input-output correspondence than for base-reduplicant correspondence or other pairs.⁴⁵ For example, the multiple simultaneous correspondences that can be established in reduplication is represented in the following schema, where the lines represent correspondence relations (Benua 1995:5):

Reduplication:



Some of the constraints in this family include:

MAX: Every element of S_1 has a correspondent in S_2 (no deletion).

DEP: Every element of S_2 has a correspondent in S_1 (no epenthesis).

LINERITY: S_1 is consistent with the precedence structure of S_2 and vice versa (no metathesis).

UNIFORMITY: No element of S_2 has multiple correspondents in S_1 (no coalescence).

IDENT (Feature): Correspondent segments have identical values for the feature F.

Generalized Alignment (GA) is a family of well-formedness constraints that evaluate representations independently of the source of those representations. It makes

⁴⁵ McCarthy 1995 provides evidence for maintaining correspondence constraints and faithfulness constraints in terms of FILL and PARSE separate.

claims about how some particular constituents align with others. "Two categories are aligned when they 'share an edge', and the Alignment constraint specifies the categories and which side of each is involved in 'sharing an edge'" (McCarthy and Prince 1993: 10). GA requires that a certain edge of a prosodic (PCat1) or grammatical (GCat1 = morphological or syntactic) constituent coincide with a specific edge of other prosodic or morphological constituent Cat2:

Generalized Alignment (from McCarthy and Prince 1993):

Align (Cat1, Edge1, Cat2, Edge2) = def
 $\forall \text{Cat1} \exists \text{Cat2}$ such that Edge1 of Cat1 and Edge2 of Cat2 coincide.

Where

$\text{Cat1}, \text{Cat2} \in \text{PCat} \cup \text{GCat}$

$\text{Edge1}, \text{Edge2} \in \{\text{Right}, \text{Left}\}$

Generalized Alignment deals, among other processes of alignment of edges, with affixation as cases of morphology/prosody correspondence demanding alignment at both edges simultaneously. Prosodic Morphology claims that morphological processes are often limited and defined by prosodic criteria (Prosodic Morphology Hypothesis, McCarthy and Prince 1994a). In cases of prosodic morphology, a ranking schema $\mathbf{P} \gg \mathbf{M}$ must be obeyed, where \mathbf{P} is a prosodic constraint and \mathbf{M} a morphological one. The ranking $\mathbf{P} \gg \mathbf{M}$ stipulates that at least "some phonological constraint must dominate some constraint of the morphology". (McCarthy and Prince 1993: 24)

Prosodic Morphology is an instance of **the emergence of the unmarked** (TETU) (McCarthy and Prince 1994b). If the grammar is given the chance in the morphological domain, it will opt to comply with prosody. In an OT framework, this means that the

grammar will prefer outputs which minimally violate the prosodic constraints.

Therefore, constraints that are violated in a language as a whole might be strictly obeyed in particular morphological processes, such as reduplication or truncation.

Some typical alignment constraints are (from McCarthy and Prince 1994b):

a. Alignment between prosodic words and feet:

Align (Ft, L, PrWd, L): Every foot is initial in prosodic word.

Align (PrWd, L, Ft, L): Every prosodic word is foot-initial.

b. Alignment between stem and affixes:

Align (Af, L/R, Stem L/R): Every affix is a prefix/suffix in Stem

c. Alignment between syllables and stems:

Align (Stem, R, Syll, R): Every Stem ends on a syllable edge.

d. Alignment between affixes and prosodic words:

Align (Af, L, PrWd, R): Every affix subcategorizes for a preceding prosodic word.

2.2 Spanish Syllabification, Foot Construction and Stress ⁴⁶

The core syllable in Spanish is CV. Sequences of the form CVCV are syllabified as CV.CV., ie. Spanish maximizes onsets. This is formalized in OT as an onset requirement:

ONS: every syllable must have an onset. (Prince and Smolensky 1993)

However, Spanish does have onsetless syllables, thus, onsets are optional. This means that an underlying representation that contains an onsetless syllable is retained

⁴⁶ The descriptive summary presented here regarding syllable formation follows mainly the work of Hualde 1992 and Harris 1983. A reference to how some facts are formalized in OT terms will be shown only when they bear some interest in the analysis to be developed in the next section.

because the language prefers to be faithful to the underlying representation rather than to supply an onset or to leave the vowel unparsed. This is achieved in OT by positing two faithfulness constraints that are ranked higher than ONS:

- MAX-IO: Underlying segments must be parsed into syllable structure.
 DEP-IO: Syllable positions must be filled with underlying segments.
 MAX-IO, DEP-IO >> ONS, onsets are optional (Prince and Smolensky 1993)

Input	MAX-IO	DEP-IO	ONS
☐ .V.			*
<V>	*		
☐.☐V.		*	

In Spanish, only vowels can be syllable heads. Syllables might have a branching nucleus consisting of a vowel plus a glide combination in any order, as in [béyn.te] 'twenty', or [myél] 'honey'. However, a glide cannot occur adjacent to a high vowel that agrees in backness:

OCP [hiV]: *yi *iy *wu *uw

Any consonant can be a one-segment onset, but not all of them occur freely in word-initial position (palatal [ɲ] is rare initially). A possible onset cluster consists of a stop or /f/ plus the liquids /l/ or /r/ as in [lí.bro] 'book' or [clá.ro] 'clear'. The only exception is *dl.⁴⁷

⁴⁷ Hualde mentions *tl as another exception. Nevertheless, this is not true in Latinamerican dialects: [atlántico] 'Atlantic' is syllabified in Latin America as [α.tlán.tico], but as [at.lán.tico] in Spain.

Codas are optional and might be a glide following a branching nucleus as in [bwéy] 'ox', or a true consonant as in [pin.tóɾ] 'painter'. /f, x, ç/ are disallowed from coda position. In word-final position, coda clusters of the form consonant + /s/ are the only allowed ([tó.raks] 'torax'). In word-internal syllables, the only possible coda clusters are /ns/ and /rs/ ([trans.pór.te] 'transport', [pers.pek.tí.ba] 'perspective').

The optionality of codas in a language is formalized in OT terms as the ranking of a constraint PARSE higher than a constraint -COD (from Prince and Smolensky 1993):

-COD: Syllables do not have codas

PARSE-SEG: Underlying segments must be parsed into syllable structure.

The ranking PARSE SEG >> -COD ensures that sequences CVC will be parsed into syllables as .CVC. rather than as CV<C>.

In general, Spanish follows the Sonority Sequencing Principle in the construction of complex onsets and codas, requiring onsets to rise in sonority towards the nucleus and codas to fall in sonority from the nucleus. It disallows clusters of consonants adjacent in the sonority scale (except for /ns/):

Sonority scale: vowels > glides > liquids > nasals > obstruents {fricatives > stops}

Spanish is a quantity sensitive language. Closed syllables and syllables with branching nuclei count as heavy and attract stress. Syllables are organized into trochaic moraic feet for primary stress, and into trochaic disyllabic feet for secondary stress (see Hayes 1995, especially pp. 94-99).⁴⁸

Trochaic foot for primary stress: ('μμ)

Trochaic foot for secondary stress: ('σσ)

⁴⁸ Hereafter "(...)" indicates foot constituency and "[...]" prosodic word constituency.

In terms of constraints, feet are trochaic and binary at some level of analysis

(μ or σ) (from Prince and Smolensky 1993):

$F_t B_{in}$: Feet are binary at some level of analysis. $F = \mu\mu, \sigma\sigma$

$Rh(ythmic)Type=T$: Feet are trochees, i.e. left-headed. $(\sigma\sigma) = (' \sigma\sigma)$

These two constraints are top-ranked in Spanish.

In even-syllabled words, stress falls in an alternating pattern $[(\sigma''\sigma) (\sigma''\sigma) (\sigma'\sigma)]$.⁴⁹

In odd-syllabled words, stress shows the **initial dactyl effect**: $[(\sigma''\sigma)\sigma(\sigma''\sigma)(\sigma'\sigma)]$. (Hayes 1995) McCarthy presents an inventory of the trochaic stress patterns based on alignment constraints (McCarthy 1993: 12). According to his inventory, an "initial dactyl" trochaic stress pattern is obtained from the interaction of two alignment constraints:

"Initial Dactyl"- Trochee + R \rightarrow L: $[(\sigma''\sigma)\sigma(\sigma''\sigma)(\sigma'\sigma)]$

Align (PrWd, L, Ft, L) \gg Align (Ft, R, PrWd, R) (McCarthy 1993: 17)

Where:

Align (PrWd, L, Ft, L): The left edge of each PrWd must match the left edge of some foot. Every prosodic word must begin with a foot.

Align (Ft, R, PrWd, R): Every foot stands in final position in the PrWd.

These two alignment constraints and their ranking fix the foot pattern obtained in Spanish and represented as the "Initial Dactyl" pattern. For simplicity, I will refer to these two constraints and their specific ranking as the "Initial Dactyl" constraint:

"Initial Dactyl": Align (PrWd, L, Ft, L) \gg Align (Ft, R, PrWd, R)

The constraint Align (Ft, R, PrWd, R) is gradient since it requires every foot to be in final position. Every foot in a prosodic word is evaluated in terms of the number of

⁴⁹ The symbol " indicates secondary stress and the symbol ' represents main stress.

syllables that separate it from the end of the word. An interesting effect, given that the constraint is violated by any non-final foot in a prosodic word, is that it will favor shorter words because the longer the word (more possible feet), the more violations incurred.

The interaction of these two alignment constraints produces unparsed syllables in odd-syllabled words as an effect of referring to contrasting edges (therefore the "initial dactyl" pattern). Consequently, a constraint requiring all syllables to be parsed into feet will have to be ranked lower than these alignment constraints:

PARSE- σ : Every syllable must be parsed into a foot.

"Initial Dactyl " >> PARSE- σ

In Spanish, unmarked main stress falls on the penultima syllable.⁵⁰ That is, a word with unmarked syllables of the form CV.CV.CV. will usually not show extrametricality effects, and main stress will fall on the penultima syllable: [*ma.(lé.ta)*] 'suitcase'. This is achieved by the following alignment constraint (from McCarthy 1993):

ALIGN-HEAD

Align (PrWd, R, H(PrWd), R): align the right edge of the prosodic word with the right edge of the head foot.

The example [*ma.(lé.ta)*] exemplifies that the alignment constraint for main stress (ALIGN-HEAD) has to dominate the other two constraints responsible for foot

⁵⁰ Main stress assignment in Spanish is a complicated issue. I am restricting the description here to unmarked cases, of which diminutive formation is an example (main stress falls always on the penultima syllable of a diminutivized word).

construction, given that keeping the last foot as the head foot is more important than constructing an initial foot, as Align (PrWd, L, Ft, L) will require:⁵¹

/maleta/	ALIGN-HEAD	Align (PrWd, L, Ft, L)
☛ [ma(léta)]		
[(mále)ta]	*!	

Finally, the concept of Prosodic Word must be formalized. In order for a word to be pronounced, it must receive stress. In order to receive stress a word must be footed. "The PrWd is composed of feet and syllables; it is the domain in which 'main stress' is defined". (Prince and Smolensky 1993: 43) Since every foot must be binary at some level of analysis, "To stand alone, a PrWd must be minimally bimoraic or disyllabic". (Kenstowicz 1994:642). This has been called the Word_{MIN} requirement.

Prince and Smolensky formalize Word_{MIN} within the morphology/phonology interface as the constraint $Lx \approx PrWd$ (MCat): a member of the morphological category MCat corresponds to a PrWd (1993:43, 101):

$Lx \approx Pr$

Every Lexical Word must correspond to a Prosodic Word.

Spanish observes this constraint strictly since almost all monosyllabic lexical words are closed syllables and thus heavy, with very few open ones (*fe* 'faith', *té* 'tea', and the notes of the musical scale *do*, *re*, *mi*, etc.). Monosyllables like *fe* and *té* can thus be argued to have an underlying long vowel which makes them heavy syllables in order to

⁵¹ If ALIGN-HEAD dominates Align (PrWd, L, Ft, L), by transitivity it also dominates Align (Ft, R, PrWd, R) given the ranking : Align (PrWd, L, Ft, L) >> Align (Ft, R, PrWd, R)

conform to the Word_{MIN} requirement. Only then could they be footed and receive stress.

<i>té</i>	[té:]
<i>fe</i>	[fé:]

3. Optimality Account of Nicaraguan Spanish Diminutivization

In this section, I will present an account of Nicaraguan Spanish diminutivization as a case of Prosodic Morphology within an Optimality Theory framework, more specifically, within Correspondence and Generalized Alignment. The major proposals of this theoretic framework have already been laid out in section 2.1, and important background information about Spanish syllable, foot and stress rules was described in 2.2.

The organizational schema of this section will be based on the summary of Nicaraguan Spanish diminutivization presented in 1.8. The summary provides a way of keeping the important issues in focus and in a hierarchical order of importance. Consequently, the analysis will proceed as follows: 3.1. will deal with the account of the general facts observed in the process. The general allomorph distribution (pattern of selection of preferred choices) will be dealt with in section 3.2. Section 3.3 will present an account of the variability observed in certain categories of words. The irregularities observed in Nicaraguan Spanish diminutivization will be discussed in section 3.4.

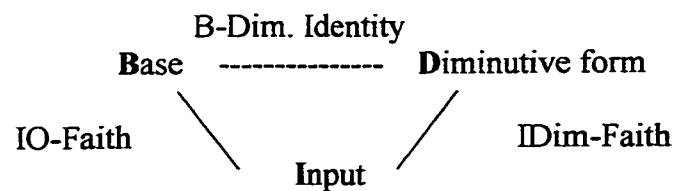
3.1 An Optimality Account of the General Facts

It is important to recall that there are only **two** diminutive allomorphs being considered, $[-\text{ito}]$ and $[-\text{sito}]$. The $[e]$ appearing sometimes before suffixing $[-\text{sito}]$

(-[esito]) has been argued to be either epenthetic or part of the stem to which diminutivization applies.

I hypothesize that diminutivization is an output to output correspondence relation in optimality theory. Diminutivization needs information that is not present underlyingly such as syllabic structure, prosodic heads, and gender marking. Therefore, the standard of comparison for diminutivization is not the underlying representation, but an output form which has been footed, has received stress, and has been assigned gender, i.e. the form against which diminutive is evaluated is the **base**, which is itself an output from the underlying representation. A minimal **stem** to which diminutive affixes attach will be determined from the **base** by prosodic constraints, thus defining diminutivization as a case of Prosodic Morphology where a morphological process is prosodically conditioned (**P**>>**M**). Following Benua's schematization of correspondence relations, diminutivization would be represented as:

Diminutivization:



In sum, there were three general facts observed in diminutivization:

- a. Diminutive allomorphs are suffixes.
- b. Main stress falls always on the first syllable of the diminutive in suffixed forms.

- c. Diminutivized words always end in unstressed /a/ or /o/, which are the default gender markers in Spanish.⁵²

Condition **a** translates directly into an alignment constraint defining a suffix:

(1) Align-Dim

Align ([dim]_{AF}, L, Stem, R): The left edge of the diminutive must align to the right edge of the stem.

Condition **b** corresponds to what has already been described in section 2.2. as main penultimate stress in Spanish. That is, diminutivized forms always show penultimate stress. Then, the constraint can be stated in general terms as a constraint requiring penultimate stress, independent of diminutivization as a process:

(2) ALIGN-HEAD

Align (PrWd, R, H(PrWd), R): Align the right head foot with the right edge of the prosodic word.

This condition is never violated in diminutivization. In 2.2 it was shown that ALIGN-HEAD is ranked higher than "Initial Dactyl", the constraints responsible for footing. Thus, it must be ranked only with respect to "Initial Dactyl". ALIGN-HEAD is not ranked with respect to Align-Gender or Align-Dim. It is independent of diminutivization. Moreover, its ranking in the whole grammar depends on how all cases of main stress are derived in Spanish, an issue that is under the scope of the present

⁵² Conditions **b** and **c** hold true always, whereas **a** does not in some words that take -[ito], where diminutivization looks more like an infix: *kokodrilo* > *kokodril* + *it* + *V* 'crocodile' (masc.) This will be explained in terms of a constraint requiring the gender markers to be at the right periphery of a prosodic word.

analysis. For our purposes, given that it is never violated, I will only include forms which comply with this constraint for simplicity's sake.

Condition *c*, that diminutivized words must always end in one of the vowels usually correlated with gender, unstressed /a/, /o/, can be achieved by a constraint requiring the alignment of the gender morphemes with the right edge of the prosodic word:

(3) Align-Gender

Align (Gender, L, PrWd, R): Align morphological markers with the right edge of a prosodic word. Morphological (gender) markers at the right periphery of the stem must be at the right periphery of the prosodic word.

Align (Gender, L, PrWd, R) must be ranked higher than the condition requiring the diminutive to be a suffix, in order to account for the "relocation" of base-final unstressed /a/, /o/: Align (Gender, L, PrWd, R) >> Align ([dim]_{Af}, L, Stem, R).

Align-Gender >> Align-Dim:

V=GenMarker Base: [mo.n-V.]	Align-Gender	Align-Dim
☛ [mo.ní.-tV.]		*
[mo.nV.-sít.]	*!	

The opposite order Align-Dim >> Align-Gender would render [monósit] as optimal. In addition, this would have to be footed as either [(monó)(sit)] which would violate a top-ranked constraint (RhType=T, feet must be trochaic), or as [mo(nó)(sit)] which would violate another top-ranked constraint (F_iB_{in}). Therefore, Align-Gender will be top-ranked, and only those options that comply with it will be included in the set of possible candidates generated by GEN for simplicity's sake.

So far, I have shown how an analysis based on Generalized Alignment adequately accounts for the three general facts observed in diminutivization. The constraints proposed were the following: (1) Align-Dim, (2) ALIGN-HEAD, and (3) Align-Gender. ALIGN-HEAD is not ranked with respect to (1) and (3), but Align-Gender must be ranked higher than Align-Dim in order to account for the relocation at the end of the diminutivized form of unstressed base-final /a/, /o/. Given that ALIGN-HEAD and Align-Gender are never violated, I will only include those candidates that comply with them in the constraint tableaux to follow.

3.2 Optimality Account of the General Distribution of Allomorphs

Diminutive allomorphy selection depends basically on three elements: the size of the base, the syllabic structure of its last syllable, and the characteristics of its final vowels. In sum, these three elements imposed the following conditions on diminutivization:

- a. Stems must be minimally bimoraic. Base-final unstressed /e/ in disyllabic words must be retained in the stem in order to maintain bimoraicity.
- b. Diminutivization must be faithful to the syllabic structure of the last syllable of the base, i.e. keeping codas as codas, onset as onsets, hiatal vowel sequences as such, and diphthongs at least as branching nuclei.
- c. Unstressed base-final /e/ in trisyllabic words or longer are lost in the output; stressed vowels are retained; unstressed base-final vowels /a/, /o/ are relocated

at the end of the diminutivized word (already explained by Align-Gender >> Align-Dim.)⁵³

These requirements make it obvious that diminutivization depends on prosodic conditions. Condition **a** must be met in order for a word to undergo diminutivization at all. Condition **b** decides between diminutive allomorphs, selecting the one which will be most faithful to the syllabic structure of the base. Condition **c** requires diminutivization to be faithful to stressed vowels, while unstressed /e/ must be lost except in disyllabic words, which also influences allomorph selection. Diminutivization is clearly a case of Prosodic Morphology: the morphological selection process is prosodically conditioned.

3.2.1 StemMin: Stems Must Be Minimally Bimoraic

The minimality requirement on the stems that undergo diminutivization correspond to the constraint defined as Word_{MIN} (see discussion in 2.1): The stem to which the diminutive applies is defined as a (minimal) prosodic word, a foot-sized unit. Lexical words must be at least bimoraic in order to receive stress and be pronounced, in order to be a prosodic word. In other words, the minimal prosodic word in Spanish consists of a bimoraic foot. Therefore, diminutivization requires the stem to be a prosodic word. This constraint can be formalized in OT as follows:

(4) StemMin

$\text{StemMin} = \text{Word}_{\text{MIN}}$: The stem must be at least the minimal prosodic word, a bimoraic foot.

⁵³ Recall that from now on, tableaux will only consider candidates which comply with Align Gender. The situation observed with unstressed base-final /a/,o/ is considered to be already accounted for.

StemMin is a *sine qua non* condition in diminutivization. Diminutivization does not accept subminimal stems. Therefore, it is an undominated constraint.

3.2.2 Retention vs. Loss of Base-Final Unstressed /e/

StemMin and Align-Dim explain the deletion versus retention pattern of base-final unstressed /e/: Disyllabic bases must retain the final /e/ in the diminutive, but trisyllabic or longer bases do not.

Base: [pé.n.e.]	StemMin	Align-Dim
☞ [pe.ne.-sí.to]		
[pe.ní.to]	*!	

Base: [pé.n-e.]	StemMin	Align-Dim
☞ [pe.n-[e].-sí.to]		*
[pe.n-í.to]	*!	

As can be seen by comparing these tableaux, the base [pé.ne] predicts the most harmonic output [pe.ne.sí.to]. On the other hand, the base [pé.n-e.] predicts [pe.n-[e].-sí.to] as the most harmonic output, but only by incurring a violation of Align-Dim caused by epenthesizing [e] in order to comply with undominated StemMin. Thus in disyllabic words ending in /e/, the most harmonic output to output requires the presence of base final /e/ given StemMin.

In trisyllabic and longer words, the situation is similar. StemMin is satisfied by bases including or excluding their final /e/. The decision is made by the ranking StemMin >> Align-Dim:

Base: [hwa.ne.te]	StemMin	Align-Dim
* [hwa.ne.te.-sí.to]		
[hwa.ne.tí.to]		*

Base: [hwa.ne.t-e]	StemMin	Align-Dim
[hwa.ne.t[e].sí.to]		*
[hwa.ne.t-í.to]		

The base [hwa.ne.te] incorrectly predicts [hwa.ne.te.-sí.to] as the optimal output. The base [hwa.ne.t-e] on the other hand, correctly predicts the optimal output, [hwa.ne.t-í.to]. Thus, trisyllabic and longer bases must be analyzed as **not** containing the base final /e/.

3.2.3 IDENT-OO (St_{μ}): Outputs Must Be Faithful to the Syllabic Structure of the Base

The condition requiring faithfulness to the syllabic structure of the base is a Correspondence constraint between output-output. It has already been defined in terms of a constraint called StRole by McCarthy and Prince (1993):

StRole

Structural Role: The syllabic structure of the base must be the same in the output.

Elordieta and Carreira (1996) formalized the constraint in their study of diminutivization in Spanish as an IDENT (Correspondence) constraint in terms of moraic structure:

(5) IDENT-IO (St_{μ})

Let S_1 be a stem in the input representation, and S_2 its correspondent in the output

representation. The association of S_1 and S_2 to moraic structure must be the same. (p. 6)

Both constraints have the same effect since moraic structure underlies syllabic structure (codas and nuclei are moraic, onsets are not). I will adopt IDENT-IO (St_{μ}) because it is slightly more appropriate given that the minimality requirement imposed on the stem has also been stated in terms of moras. However, I will call it IDENT-OO given that it is actually an output to output correspondence constraint.

3.2.4 The Ranking IDENT-OO (St_{μ}) >>Align-Dim Explains Allomorph Selection

IDENT-OO (St_{μ}) explains straightforwardly why consonant-final stems (including monosyllables) prefer the diminutive $[-sito]$: Consonant-final stems select $[-sito]$ given IDENT-OO.

Consonant-final bases (including monosyllabic ones) prefer $[-sito]$ because of IDENT-OO:

	IDENT-OO
Base: [fus.tán.] μ	
➡ [fus.tan.-sí.to.] μ	
[fus.ta.n-í.to.]	*!
Base: [pán.]	
➡ [pan.-sí.to.] μ	
[pa.n-í.to.]	*!

In some cases where words prefer $[-\text{ito}]$, Align-Dim is minimally violated to satisfy IDENT-OO (St_{μ}). When IDENT-OO (St_{μ}) is ranked higher than Align-Dim, syllabification in stem+suffix juncture is possible. The ranking IDENT-OO \gg Align-Dim explains the preference for $[-\text{ito}]$ as opposed to $[-\text{sito}]$ in stems ending in a diphthong, stems ending in unstressed /a, /o/, and stems ending in special /s/⁵⁴ (also assuming the constraint Align-Gender, which ensures the relocation of unstressed final /a/, /o/ to the end of the diminutivized word).

Bases ending in a diphthong and bases in unstressed /a, /o/ prefer $[-\text{ito}]$:

Base:[rá.dy-V.]	IDENT-OO	Align-Dim
☛ [ra.dí.-to.]		
[rad.-sí.to.]	*!	
μ		
Base: [mó.n-V.]	IDENT-OO	Align-Dim
☛ [mo.ní.-to.]		
[mon.-sí.to.]	*!	
μ		

Bases ending in special /s/ prefer $[-\text{ito}]$:

Base= [ti.he.rV+s.]	IDENT-OO	Align Dim.
☛ [ti.he.r í-tas]		
[ti.he.r.-sí.tas.]	*!	
μ		

IDENT-OO (St_{μ}) \gg Align Dim. is also responsible for the selection of *hiato-ito* of bases ending in hiatus.

⁵⁴ Recall that bases ending in special /s/ have to be analyzed as $[\text{tihe}r+A+s]$ to derive the right output form.

Bases ending in hiatus prefer *hiato-íto*:

base= [pa.na.de.rí.V.]	IDENT-OO	Align-Dim
☛ [pa.na.de.ri.í.-ta.]		
[pa.na.de.rí.φ.-ta.]	*!	

The symbol φ represents that the output [*panaderíta*] has left the moraic position of the onsetless V unfilled.

The opposite ranking, Align-Dim >> IDENT-OO, would predict incorrect outputs as exemplified by [radyo] below:

Base:[rá.dy-V.]	Align-Dim	IDENT-OO
[ra.dí:.-to.]	*!	
*☛ [rad.-sí.to.] μ		

Finally, IDENT-OO >> Align-Dim also accounts for the selection of *-[sito]* of disyllabic bases ending in /e/, and for *-[íto]* of trisyllabic and longer bases ending in /e/.

Recall that StemMin and Align-Dim required the base of disyllabic words to include their final /e/, and the base of longer words to exclude them.

Optimal output for disyllabic bases ending in /e/:

Base: [pé.ne.]	IDENT-OO	Align-Dim
☛ [pe.ne.-sí.to]		
[pen.-síto] μ	*!	
[pe.ní.-to]		*!

Optimal output for trisyllabic or longer bases ending in /e/:

Base: [á.ra.b-e]	IDENT-OO	Align-Dim
[a.ra.b-[e].sí.to]		*!
[arab.-síto]	*!	
 ┆		
☛ [a.ra.b-i.to]		

3.2.5 Summary of Cases Accounted for by StemMin, IDENT-OO and Align-Dim

So far, several cases of the general pattern of diminutive allomorph selection have been accounted for in terms of (4) StemMin, Align-Dim, (5) IDENT-OO, and the crucial ranking IDENT-OO >> Align-Dim. The following table summarizes the analysis:

General Pattern of Diminutive Allomorph Selection Accounted for by StemMin and IDENT-OO >> Align Dim.⁵⁵

	-[ito]	-[sito]	Hiato-íto
B A S E S	Final unstressed vowel /a/, /o/ IDENT-OO >> Align-Dim	Monosyllabic ending in a consonant IDENT-OO >> Align-Dim	hiatal /V+V/ ending IDENT-OO >> Align-Dim
	Final tautosyllabic /V+V/ sequence; disyllabic or longer IDENT-OO >> Align-Dim	Monosyllabic ending in a long vowel	
	'special' final /s/ IDENT-OO >> Align-Dim	Consonant-final (including words ending in ón/ona, or/ora) IDENT-OO >> Align-Dim	
	Trisyllabic or longer ending in unstressed /e/ Loss of /e/ = StemMin >> Align-Dim Selection of -[ito] = IDENT- OO >> Align-Dim	Disyllabic ending in /e/ Retention of /e/ = StemMin Selection of -[sito] = IDENT-OO >> Align-Dim	
		Final stressed vowel	

⁵⁵ The shaded boxes represent the cases that have not yet been accounted for.

In addition, the retention of base-final /e/ in disyllabic bases and the loss of final /e/ in trisyllabic bases or longer have received a unified account and have been explained as a result of StemMin and Align-Dim.

3.2.6 IDENT-OO >> ONS: The Emergence of the Unmarked

Disyllabic words ending in unstressed /e/ (assuming the undominated constraint StemMin that ensures the retention of final /e/ in the stems) and monosyllabic words ending in a long vowel illustrate the emergence of the unmarked. The preference for $-\text{[sito]}$ is based on the fact that the alternative with $-\text{[ito]}$ violates (6) ONS, a constraint that is violated generally in the grammar, but that processes in the interface between morphology and phonology will try to respect except when faithfulness to the moraic structure of the base demands it (IDENT-OO). Therefore, ONS must be ranked lower than IDENT-OO: IDENT-OO >> ONS.⁵⁶

(6) ONS: every syllable in the output must have an onset.

Monosyllabic and disyllabic bases ending in unstressed /e/ do NOT have the option $-\text{[ito]}$ because these outputs incur a gratuitous violation of ONS.

Monosyllabic bases ending in a (long) vowel and disyllabic bases ending in unstressed /e/ select $-\text{[sito]}$:

Base: [té:]	IDENT-OO	ONS
→ [te:.-sí.to.]		
[te:.-í.to.]		*!

⁵⁶ The ranking IDENT-OO >> ONS is necessary to explain why bases that end in hiatus retain it although they also violate ONS.

Base:[pe.ne.]	IDENT-OO	ONS
→ [pe.ne.-sí.to.]		
[pe.ne.í.to.]		*!

3.2.7 MAX-HEAD Requires the Retention of Base-Final Stressed Vowels

Bases that end in a stressed final vowel always retain it in the diminutivized word and prefer *-[sito]*. I propose an undominated Correspondence constraint demanding that the prosodic head of the base be present in the output:

(7) MAX-HEAD: the prosodic head of the base must be present in the output.

MAX-HEAD only requires the prosodic head of the base to be **present** in the output. It does not require it to **be** the prosodic head in the output.

If the base is disyllabic, the retention of the final stressed vowel as part of the stem is necessary to satisfy the ungoverned constraint StemMin, independently of whether the final vowel is stressed or not (cf. disyllabic words ending in unstressed /e/). StemMin decides anyway that disyllabic bases must keep a final vowel if different than /a/, /o/.

Optimal output for disyllabic bases ending in a stressed vowel:

base= [ta.bú.]	StemMin	MAX-HEAD
→ [ta.bu.-sí.to.]		
[ta.bí-.to.]	*!	

If the base is longer than disyllabic, MAX-HEAD will account for the selection of the output that retains the stressed final vowel. In all other bases, MAX-HEAD is vacuously filled.

Optimal output for trisyllabic or longer bases ending in a stressed vowel:

Base: [ko.mi.té]	MAX-HEAD
[ko.mi.te.-sí.to]	
[ko.mi.tí-.to]	*!

MAX-HEAD will indirectly account for the diminutive preference of *-[sɪto]* of bases that end in a stressed vowel. MAX-HEAD ensures that the base stressed final vowel must be present and thus *-[sɪto]* is the only one that will satisfy IDENT-OO.

3.2.8 Summary of an Optimality Account of the General Pattern of Diminutive Allomorph Selection

With the introduction of two additional constraints, (6) ONS and (7) MAX-HEAD, the scenario of the general pattern of diminutive allomorph selection (selection of preferred form) is complete:

General Pattern of Diminutive Allomorph Selection

	-[ito]	-[sito]	Hiato-ito
B A S E S	Final unstressed vowel /a/, /o/ IDENT-OO>>Align-Dim	Monosyllabic ending in a consonant IDENT-OO>>Align-Dim	hiatal /V+V/ ending IDENT-OO>>Align-Dim
	Final tautosyllabic /V+V/ sequence; disyllabic or longer IDENT-OO>>Align-Dim	Monosyllabic ending in a long vowel Retention of vowel = StemMin. Selection of -[sito] = IDENT- OO>>Align-Dim	
	'special' final /s/ IDENT-OO>>Align-Dim	consonant-final (including words ending in <i>ón/ona</i> , <i>or/ora</i>) IDENT-OO>>Align-Dim	
	Trisyllabic or longer ending in unstressed /e/ Loss of /e/ = StemMin >>Align-Dim Selection of -[ito] = IDENT- OO>>Align-Dim	disyllabic ending in /e/ Retention of /e/ = StemMin Selection of -[sito] = IDENT- OO>>Align-Dim	
		final stressed vowel Retention of vowel = MAX- HEAD Selection of dim. IDENT- OO>>Align-Dim	

The general pattern of diminutive allomorph selection is characterized by the following constraints and ranking: StemMin, HEAD-MAX, IDENT-OO >> Align-Dim.

ONS does not allow the option **-[ito]** for monosyllables ending in a (long) vowel or disyllabic words ending in unstressed /e/, and bases ending in stressed vowels.

The general facts are accounted for by the following constraints:

Align-Gender, ALIGN-HEAD, and Align-Dim., where: Align-Gender >> Align-Dim.

Align-Gender and ALIGN-HEAD are never violated in diminutivization. Thus, only those candidates that conform to both constraints have been considered in the constraint tableaux.

3.3 Optimality Account of Variability

What needs to be explained here are basically the following:

- a. Why some disyllabic bases ending in unstressed /e/ that have an initial heavy closed syllable lose the base final /e/ and accept *-[ito]*;
- b. Why epenthesis is accepted as a second option in monosyllabic bases;
- c. Why epenthesis is accepted as a second option in bases ending in a diphthong), and;
- d. Why trisyllabic and longer bases ending in /e/ retain their final /e/ and accept *-[sito]* as a second option.

3.3.1 Variability Due to StemMin vs. DISYLL

a and b are explained by the competition of two different minimality requirements imposed on the stem. One has been proposed here as StemMin, requiring the stem to be bimoraic. The other has been proposed in the previous literature about diminutivization in Spanish, and formalized within an OT framework as the constraint DISYLL (Elordieta and Carreira 1996):

(8) DISYLL

The base of suffixation must be disyllabic.

These two requirements will produce competing stems for disyllabic words ending in unstressed /e/. If the dominant requirement is StemMin, the base-final /e/ is not necessary when the first syllable of the base is heavy, since this syllable by itself is sufficient to comply with bimoraicity. In this situation, a suffix of the form *-[sito]* is

disfavored because it will require epenthesis of /e/ to obey IDENT-OO. Epenthesis constitutes a violation of the Correspondence constraint DEP. Recall the constraint DEP defined above:

(8) DEP: Every element of S_2 has a correspondent in S_1 (no epenthesis).

IDENT-OO >> DEP

The optimal output will be of the form $-[ito]$

Requirement = StemMin, optimal form $-[ito]$.

Base: [Čín.g-e]	StemMin	IDENT-OO	DEP
☛ [Čín.g-í.to.]			
[Čín.g-[e].sí.to.]			*!
[Číng-.sí.to.] μ		*!	

On the other hand, if the dominant requirement is DISYLL, the base-final /e/ is necessary to satisfy the requirement. Since the final /e/ must be part of the stem, the optimal output will be the diminutivized form with $-[sito]$ because $-[ito]$ forms require to leave the base-final /e/ unparsed violating the Correspondence constraint MAX. Recall the constraint MAX defined above:

(9) MAX: Every element of S_1 has a correspondent in S_2 (no deletion) (see discussion of Correspondence in section 2.1).

MAX must be crucially dominated by DEP to obtain epenthesis.

Requirement = DISYLL, optimal form -[sito]:

Base: [čín.ge]	DISYLL	IDENT-OO	DEP	MAX
.čín.g-í.to.]				*!
☛ .čín.ge.-sí.to.]				
[číng- sí.to.] ɹ		*!		

Note that any identity violation (DEP or MAX) of the outputs that do not violate the higher ranked IDENT-OO produces a misalignment of the diminutive suffix.

Therefore, the ranking IDENT-OO >> Align-Dim will also produce the same results:

Requirement = StemMin, optimal form -[ito].

Base: [čín.g-e]	StemMin	IDENT-OO	Align-Dim
☛ [čín.g-í.to.]			
[čín.g-[e].sí.to.]			*!

Requirement = DISYLL, optimal form -[sito]:

Base: [čín.ge]	DISYLL	IDENT-OO	Align-Dim
.čín.gí-.to.]			*!
☛ .čín.ge.-sí.to.]			

The competition between StemMin and DISYLL then accounts for the variability observed with disyllabic words that end in /e/ with a heavy initial syllable.

The variability with monosyllables is more interesting because in this case, there is a clear difference between the selections: -[sito] is the preferred one and -[sito] with epenthesis (-[esito]) is selected as the second option. There is no ambiguity.

The options with epenthesis are the ones that have been described extensively in the literature. Indeed, they have been claimed to be the only possible diminutivization

forms for monosyllabic words. Epenthesis is justified in order to augment the stem because of the DISYLL requirement (see discussion in Chapter II). This situation, of course, does not hold in Nicaraguan Spanish diminutivization, given that monosyllables take *-[sɪto]* without epenthesis as the irrefutable best option.

Requirement = StemMin, optimal form *-[sɪto]*

Base: [pán.]	StemMin	IDENT-OO
 μ		
☛ [pan.-sí.to.]		
[pa.n-[e].sí.to]		*!

Requirement = DISYLL, optimal form *-[sɪto]* with epenthesis (*-[esɪto]*)

Base: [pán.]	DISYLL	IDENT-OO
 μ		
[pan.-sí.to.]	*!	
☛ [pa.n-[e].sí.to]		

I would like to propose that this is a historical competition, a change in constraint ranking. DISYLL corresponds to an older stage of the Nicaraguan dialect, while StemMin corresponds to the current stage. This is supported by the fact that the DISYLL >> StemMin ranking describes a more prescriptive (written) register in Nicaragua which tends to be conservative, whereas StemMin >> DISYLL accounts for the synchronic situation observed in spoken language in Nicaragua. Diminutivization of monosyllables is a piece of evidence that StemMin synchronically dominates DISYLL in Nicaraguan Spanish. Diminutivization of disyllabic words ending in unstressed /e/, specifically the ambiguous pattern of retention vs. loss of base-final /e/, reflects the two constraints in conflict.

3.3.2 IDENT-OO >> Align-Dim Accounts for Epenthesis as Second Option

Turning now to **c**, it is not surprising that epenthesis would be utilized in words ending in a diphthong because it provides another way of satisfying IDENT-OO, just as the preferred form **-[ito]** does, where actually, the initial /i/ is long: **-[i:to]** to satisfy the bimoraic branching nucleus. The disadvantage of epenthesis is that it always incurs a violation of Align-Dim, therefore being less optimal than **-[ito]**. It is only allowed in order to satisfy IDENT-OO, a higher ranked constraint, thus yielding our ranking as IDENT-OO >> Align-Dim. The other candidate loses out because it cannot satisfy IDENT-OO.

Epenthesis as a second option "→" in bases ending in a diphthong:

Base:[rá.dy-V.]	IDENT-OO	Align-Dim
☛ [ra.dí: -to.]		
→[ra.dy-[e].sí.to.]		*
[rad.-sí.to.]	*!	

The case of variability in trisyllabic or longer words ending in /e/ (**d**) is similar to **c** above. The option of epenthesis allows the output to be faithful to IDENT-OO, but it incurs a violation of Align-Dim in order to do so. The losing candidate cannot satisfy IDENT-OO.

Epenthesis as second option (→) in trisyllabic or longer bases ending in unstressed /e/:

Base:[á.ra.b-e]	IDENT-OO	Align-Dim
☛ [a.ra.b-i.to.]		
→[a.ra.b-[e].sí.to.]		*!
[a.rab-.sí.to.]	*!	
u		

3.3.3 Summary of the Optimality Account of Variability

In summary, the variability cases are of two types: One is due to the conflict between two competing size requirements imposed on the stem, StemMin and DISYLL. The other is due to the possibility of epenthesis "rescuing" a violation of IDENT-OO by violating the lower ranked constraint Align-Dim.

In the first type of variability, one situation is found where there are two preferred competing outputs depending on the definition of the size requirement of the stem, StemMin or DISYLL. This is the case of disyllabic words ending in unstressed /e/. Another situation is when there is a clear preference for the StemMin requirement favoring in turn a clear preference for a specific diminutive allomorph (-[sito]) instead of allowing epenthesis to augment the stem in order to fulfill the DISYLL requirement. Augmenting the stem by epenthesis of [e] is the second best option. This is the case of monosyllabic bases.

The competition between the two minimality constraints is explained as a case of a historical change in constraint ranking. The older stage corresponds to the ranking DISYLL >> StemMin, while the synchronic stage is better characterized by the reversed ranking StemMin >> DISYLL.

The second type of variability is characterized by some categories of words that allow epenthesis as a second option in order to avoid violations of IDENT-OO by incurring in a violation of the lower ranked constraint Align-Dim. This is the case of bases that end in a diphthong and of trisyllabic or longer words that end in unstressed /e/.

3.4 An Optimality Account of Irregularities

The following four cases were pointed out as irregularities observed in diminutivization:

- a. Bases ending in hiatus tend to reject diminutivization.
- b. Bases ending in /d/ tend to reject diminutivization.
- c. The word *red* 'net' prefers *-[sito]* with an epenthetic [e] before the suffix *-[sito]* (*-[esito]*) behaving differently than /d/-final bases which prefer *-[sito]* without epenthesis.
- d. Some words ending in /l/ prefer *-[ito]*; others prefer *-[sito]*.

3.4.1 IDENT-OO >> Align-Dim Requires a Violation of ONS in Bases Ending in Hiatus

In section 3.2.4. I explained the selection of *hiato-íto* of bases ending in hiatus as the result of diminutivization being faithful to the syllabic structure of the base:

IDENT-OO >>Align-Dim

Hiato-íto allows the diminutive to retain the hiatal structure of the base:

pa.na.de.rí.a. > pa.na.de.ri.í.ta

However, as pointed out in section 2.2, Spanish prefers syllables with onsets (ONS), but faithfulness requirements (MAX and DEP) are dominant so that hiatal sequences are parsed as such, minimally violating ONS.

The diminutive forms cannot be more faithful to ONS than the actual base given the high-ranked constraint IDENT-OO, thus the optimal option also violates ONS. This violation militates against the emergence of the unmarked because the morphological

process of diminutivization cannot comply with a prosodically desirable output which would respect ONS. This explains why people prefer not to diminutivize bases ending in hiatus.

3.4.2 * [+cont.] in /d/-Final Bases

/d/-final bases select *[-sɪto]* as any other consonant-final base does given IDENT-OO, but people tend to reject diminutivization of these words.

As pointed out in 1.6, I believe this is the result of a constraint active in the grammar disallowing sequences of adjacent *[+cont]* consonants. In Spanish, /d/ is spirantized in word-final position as well as intervocally, and sometimes, it is even omitted word-finally, specially in the Central American and Caribbean dialects. Not surprisingly, in the written task, people usually omitted the base-final /d/ in these words before adding the suffix *[-sɪto]*.⁵⁷

Let me formalize the restriction on adjacent consonants as the constraint **[+cont]*:

10) **[+cont]*

Adjacent *[+cont]* consonants are prohibited in the output.

In order to properly establish the ranking of **[+cont]*, it is important to consider that epenthesis was disfavored over *[-ɪto]* as second option for these words. Therefore, *Align-Dim* must be ranked higher than **[+cont]*:

⁵⁷ Recall that there was an option labeled "special" in which the cases where diminutive formation followed from regular stem-changing processes were registered. For /d/-final bases, this option represented the diminutive *[-sɪto]* preceded by the deletion of /d/ (see **Table 3B** on pp. 89-90). The "special" options were later subsumed under the corresponding general diminutive allomorph.

Base:[syu.ǎáǎ.] μ	IDENT-OO	Align-Dim	*[+cont]
↪[syu.ǎáǎ.-sí.ta.] μ			*
→[syu.ǎa.ǎ-i.ta.]	*!		
[syu.ǎa.ǎ-[e].sí.ta.]	*!	*!!	

This ranking would give us [syuǎaǎíta] as a better second option than [syuǎaǎesíta] given that it respects *[+cont] without incurring in an Align-Dim violation.

3.4.3 Monosyllabic *red*, *[+cont], and StemMin vs. DISYLL

Bases which are longer than monosyllabic satisfy both minimality requirements on the stem, StemMin and DISYLL. On the contrary, monosyllabic *red* only satisfies StemMin, and only by pronouncing the final /d/, thus making the violation of *[+cont] more evident.

Monosyllabic bases in general accept epenthesis as second options because of the competition between StemMin and DISYLL as explained in 3.3.1. Consequently, it is logical that monosyllabic words ending in /d/ will not only reject diminutivization with -[sito], but also prefer epenthesis, their "natural" second option after -[sito].

StemMin >> DISYLL: First option = -[sito]

Base: [reð.] μ	StemMin	IDENT-OO	Align-Dim	*[+cont]
☛ [reð.-sí.ta.] μ				
[re.ð-[e].sí.ta.]		*!		
[re.ð-í.ta.]		*!		

DISYLL >> StemMin: First option = epenthesis to augment the stem

Base: [reð.] μ	DISYLL	IDENT-OO	Align-Dim	*[+cont]
[reð.-sí.ta.] μ	*!			
☛ [re.ð-[e].sí.ta.]		*!		
[re.ð-í.ta.]	*!	*!		

In this sense, monosyllabic words ending in /d/ reflect the older stage where DISYLL >> StemMin, but a move towards the opposite ranking would be predicted if the present analysis is on the right track. Therefore, in the future, *red* would behave as any other consonant-final base and select -[sito] as its preferred diminutive.

3.4.4 Possible Explanations for the Irregular Behavior of /l/-Final Bases

The results obtained for words ending in /l/ are puzzling. Two of the four words included selected -[sito] as expected, while the other two selected -[ito]. It seems that there is a strict conflict between the two allomorphs, with a general tendency to prefer -[ito] over -[sito]. This contrast with all other consonant-final bases which select -[sito]

because of IDENT-OO. However, bases ending in /l/ pattern with bases ending in /d/ in rejecting epenthesis. There are two possible explanations for this irregular behavior of base-final /l/ words.

The first one corresponds to the descriptive analysis offered in section 1.6 in this chapter where the restriction on adjacent [+cont] consonants was also applied to words ending in /l/. That is, words ending in /l/ prefer -[ito] in order to respect the constraint *[+cont] on the output. For this to be true /l/ must be considered [+cont] which is highly controversial as mentioned by Harris (1994, pp. 179-181).

If the constraint *[+cont] can be applied to the sequence /ls/, the irregular behavior of bases ending in /l/ will be explained exactly as the irregular behavior of words ending in /d/ was, but /r/ must be considered [-cont] (/r/-final bases accept -[sito] without reservations):

Base:[dé.bil.] μ	IDENT-OO	Align-Dim	*[+cont]
↔[de.bil.-sí.to.] μ			*
→[de.bi.l-í.to.]	*!		
[de.bi.l-[e].sí.to.]	*!	*!!	

The preferred forms would be with -[sito], and -[ito] forms would be second best with epenthesis being disfavored given the violation of Align-Dim.

Yet another explanation might be that /l/ does not constitute a good coda in Spanish. That is, there is a constraint prohibiting the liquid /l/ to be in coda position in the output:

11) *l]_σ

/l/ cannot be in coda position in the output.

This constraint would be ranked exactly as * $[+cont]$:

Base:[dé.bil.] μ	IDENT-OO	Align-Dim	*l] _σ
↔[de.bi.l.-sí.to.] μ			*
→[de.bi.l-í.to.]	*!		
[de.bi.l-[e].sí.to.]	*!	*!!	

The constraint *l]_σ has the same problem as * $[+cont]$. There is no strong evidence that it is active elsewhere in Spanish. The only independent evidence is the puzzling behavior of the sequence /ld/ that Piñeros notes in truncation forms in Spanish. (Piñeros 1998) A coda /l/ is only preserved in truncated forms when followed by an homorganic segment which gives /l/ its place of articulation by assimilation. However, when a coda /l/ is followed by homorganic /d/, it is not preserved in coda position, but rather, it becomes the onset. /d/ is deleted and /l/ becomes an onset:

[leo.pól.do.]_{pwd} [(pól)o]_{pwd} Leopoldo

Piñeros posits a constraint requiring codas not to have a place specification of their own (CodaCond, p. 19). He assumes that there is a constraint banning the sequence /ld/, but the question is why the offending sequence is simplified in favor of /l/, the most sonorous segment, when /d/ would be better as a syllable onset given that it is less sonorous. One might conclude then, that /l/ has some property that makes it a better onset than a coda.

At this point I do not have a satisfactory, convincing explanation for why bases ending in /l/ prefer sometimes $[-ito]$ instead of $[-sito]$. Both explanations provided here are in need of stronger independent motivation.

Chapter VI: Summary and Conclusions

1. General Summary

Previous literature on diminutive formation (Jaeggli 1980, Prieto 1992, Crowhurst 1992, and Elordieta and Carreira 1996) presents different descriptions of diminutivization pointing to the variability existent in the process. However, only Prieto 1992 acknowledges (but does not account for) variability, and only that article attempted to collect data in an organized way. Diminutivization in Spanish is a process where a certain rate of variability is expected, not only across dialects, but also within dialects. Consequently, an adequate analysis of diminutivization relies heavily on the completeness and reliability of the data.

The goals of the present investigation of diminutive formation in Nicaraguan Spanish were twofold: to collect a solid corpus of data defining a clear pattern of diminutive formation in terms of preference and variability, and to provide an analysis within Optimality Theory to account for the field data.

The collection of data was done with a survey carefully designed to allow for a ranking of possible diminutive options for each word, and to emphasize the categories of words defined as problematic based on previous literature. The survey was conducted in Nicaragua during August 1998. The total number of surveys was 95, distributed in the following way:

Group 1-UAM A: 17 college students from the Universidad Americana - UAM
(American University) surveyed as a group. Ages 17-19.

- Group 2 - UAM B: 29 college students from the Universidad Americana – UAM (American University) surveyed as a group. Ages 17-22.
- Group 3 - UCA: 30 college students from the Universidad Centroamericana – UCA (Central American University) surveyed as a group. Ages 17-26.
- Group 4 - CASA: 19 individual surveys. Ages 16-83. Each person was given the survey separately, as opposed to in a group. Only two of these surveys were done with the help of an assistant (the same person for both surveys), who read the instructions to the subjects and wrote the answers for them.

The process of designing the survey is explained in detail in Chapter III.

The answers to the survey were coded and entered in a computer using a relational data base (Microsoft Access). Four of the surveys were not used in tabulating the results. Three of them were incomplete, and one did not contain diminutive forms in the written part. The response values for these eliminated surveys were left blank. The tables presented on pp. 84-95 show the distribution of responses for each diminutive form by word (tables numbered 3) and by word category (tables numbered 2) presented as percentages rather as actual counts. The results are presented in detail in Chapter IV.

They can be summarized as follows:

RESULTS

General Facts:

1. Diminutivization is a suffixation process.
2. Main stress always falls on the penultimate syllable in diminutivized forms.

3. Diminutivized words always end in an unstressed [+back, -high] vowel (/a/, /o/).

General Allomorph Distribution

Diminutive allomorphy selection depends basically on three elements of the base:

- its size
- the syllabic structure of its last syllable
- the characteristics of its final vowel

Diminutive Allomorph Selection According to the Base

	-[ito]	-[sito]	-[esito]	Hiato-íto
B	final unstressed vowel	Monosyllabic		hiatal /V+V/ ending
A				
S	final tautosyllabic /V+V/ sequence; disyllabic or longer	disyllabic ending in /e/		
E				
S	'special' final /s/	consonant-final (including words ending in ón/ona, or/ora)		
		final stressed vowel		

Only two diminutive allomorphs are justified. The [e] appearing sometimes before suffixing -[sito] can be analyzed as either epenthetic, or as part of the stem to which suffixation applies.

Variability: Categories of words that accept "second options"

- 1) Monosyllabic bases prefer -[sito], but also accept -[sito] with an epenthetic [e] before the suffix (*pan* > *panesito*, preferred *pansito*).
- 2) Disyllabic bases ending in unstressed /e/ that have initial heavy, closed syllables prefer -[sito], but also lose the base-final /e/ and accept -[ito] (*chingue* > *chinguito*, preferred *chinguesito*).

- 3) Trisyllabic and longer bases ending in /e/ lose the final /e/ and prefer -[ito], but also retain their final /e/ and accept -[sito] (*árabe* > *arabecito*, preferred *arabito*)
- 4) Bases ending in a diphthong prefer -[ito], but also accept -[sito] with an epenthetic [e] before the suffix (*radio* > *radiecito*, preferred *radito*).

Irregularities:

- 1) Bases ending in hiatus tend to reject diminutivization.
- 2) Bases ending in /d/ tend to reject diminutivization.
- 3) The word *red* 'net' prefers -[sito] with an epenthetic [e] before the suffix rather than -[sito]. It rejects -[ito] forms.
- 4) Some words ending in /l/ prefer -[ito] rather than -[sito]. These forms reject epenthesis.

The analysis of diminutivization in Nicaraguan Spanish is developed here within Optimality Theory (OT) (Prince and Smolensky 1993) and its interaction with Prosodic Morphology (McCarthy and Prince 1994ab), specifically within the sub-theories of Correspondence (McCarthy and Prince 1994a) and Generalized Alignment (McCarthy and Prince 1993). Under OT, the grammar selects the most optimal output from a set of possible candidates given their evaluation against a set of universal constraints that the language has hierarchically organized and which are violable in principle. In this sense, the concept of "optimal" output underlying OT allows precisely for situations where variables or less optimal forms might arise, depending on the violation(s) incurred with respect to the hierarchy of constraints.

I proposed that diminutivization in Nicaraguan Spanish is an output to output correspondence process demanding the stem be minimally bimoraic (StemMin), and requiring the output to be faithful to the prosodic structure of the base. These faithfulness requirements on the output to output correspondence will produce misalignment of the suffix in some cases. Variability was explained as either historical changes involving the constraints StemMin and DISYLL, or as the optionality of epenthesis of an [e] before the diminutive suffix in order to avoid a faithfulness (correspondence) violation.

2. Summary of the Optimality Account of Diminutivization in Nicaraguan Spanish

The optimality account of diminutivization presented here is broader in scope than previous accounts in that it correctly predicts not only the general facts, but also the pattern of diminutive allomorph selection in all possible type of bases that undergo diminutivization in Nicaraguan Spanish. It does so by enumerating a set of constraints and a constraint ranking that first, appropriately define the stems to which diminutivization applies; secondly, explain the requirements on which allomorphy selection is based, and; thirdly, predict the variability observed in specific types of bases that allow secondary diminutive options. Moreover, the present analysis also provides a satisfactory account of the irregular behavior observed in the diminutivization of words ending in hiatus and of words ending in /d/, which tend to reject diminutivization, as well as of monosyllabic words ending in /d/ which present a pattern different than their longer counterparts in opting for epenthesis before suffixing *-[sito]*. The only case for

which the present analysis does not provide a satisfactory solution is the irregularity of some words ending in /l/ that slightly reject $[-\text{sito}]$ and prefer $[-\text{ito}]$. For this specific case, two possible solutions were presented, but both are in need of further independent motivation.

The present analysis acknowledges two diminutive allomorphs, $[-\text{ito}]$ and $[-\text{sito}]$, with the /e/ appearing before $[-\text{sito}]$ in some words being analyzed as an epenthetic [e] with no morphological affiliation, consistent with the principle of Consistency of Exponence (see discussion in section 2.1 below).

2.1 The General Facts

Three alignment constraints were defined to account for the general morphological facts observed in diminutivization:

- 1) Align-Dim. Defines diminutivization as a suffixation process.
- 2) ALIGN-HEAD. Determines the location of main stress in the penultimate syllable.
- 3) Align-Gender. Accounts for the relocation of base-final unstressed /a/ or /o/, or for the location of otherwise supplied gender markers, at the end of the diminutivized forms.

ALIGN-HEAD is a constraint independent of any morphological process. It is unviolated in diminutivization. Align-Dim is crucially dominated by Align-Gender in order to account for the proper order of morphemes. Align-Gender is also undominated in diminutivization. The resulting ranking is:

ALIGN-HEAD, Align-Gender >> Align-Dim

2.2 Constraints that Determine the Stem of Diminutivization

One of the most important departing points of the present account is the definition of a constraint demanding that the stem be minimally bimoraic, StemMin. Previous accounts propose instead the constraint DISYLL, requiring the stem to be minimally disyllabic. However, DISYLL does not predict correctly the selection of *-[sito]* of monosyllabic words observed in Nicaraguan Spanish. In the present analysis, the selection of *-[sito]* in monosyllabic words is interpreted as an irrefutable piece of evidence for StemMin: StemMin = ($\mu\mu$)

The pattern of retention vs. loss of base-final unstressed /e/ receives a unified account for disyllabic and longer bases. It is explained as a result of StemMin and Align-Dim. The analysis predicts the retention of base-final /e/ in CV.CV. disyllabic words in order to obey StemMin, and predicts its loss in CVC.CV. disyllabic bases given that the first heavy syllable is bimoraic and satisfies StemMin:

Base	Stem for Dim.
[pé.ne.]	pe.ne.-
[čín.ge]	čin.g-

In trisyllabic and longer bases ending in unstressed /e/, StemMin >> Align-Dim defines the most harmonic output as **not** containing the base-final /e/. Align-Dim is crucially dominated by IDENT-OO (see 2.3 below):

Base	Stem for Dim.
[á.ra.b-e]	a.ra.b-

A constraint requiring the prosodic head of the base to be present in the output, HEAD-MAX, determines that the stem for diminutivization must include its prosodic head. In particular, this constraint ensures the retention of base-final stressed vowels as part of the stem undergoing diminutivization:

Base	Stem for Dim.
[ta.bú]	ta.bu.-
[ko.mi.té.]	ko.mi.te.-

2.3 Constraints Responsible for Diminutive Allomorph Selection

The major constraint responsible for diminutive allomorph selection is a constraint requiring diminutivization to be faithful to the syllabic structure of the base, IDENT-OO (St_μ). IDENT-OO is crucially ranked higher than Align-Dim in order to allow for syllabification across morpheme junctures in stems that end in any unstressed vowel (except disyllabic bases ending in /e/): IDENT-OO >> Align-Dim

2.4 Constraints Responsible for Variability

Variability was accounted for as the result of two factors: A competition between two different stem-minimality requirements, StemMin and DISYLL on the one hand, and the ranking IDENT-OO >>Align-Dim which accounts for epenthesis as a secondary option on the other hand.

The conflict between StemMin and DISYLL was expressed in terms of a historical change in constraint ranking. StemMin >> DISYLL represents the synchronic

stage in Nicaragua, whereas DISYLL >> StemMin represents an older stage of the dialect.⁵⁸

The change from DISYLL >> StemMin to the reversed ranking StemMin >> DISYLL is complete in monosyllabic words. Therefore, their preferred diminutive allomorph is *-[sito]*, but they also accept epenthesis before *-[sito]* (*-[esito]*) as a second option at the expense of Align-Dim corresponding to an augmentation of the stem to comply with DISYLL.

The two competing rankings are still in conflict in disyllabic bases ending in unstressed /e/, where the situation in general still seems to represent the older stage. Therefore, most of the words that have a heavy initial syllable still retain their base-final /e/ and select *-[sito]*, but a few of them with initial heavy syllables are already losing the base-final /e/ and selecting *-[ito]*.

On the other hand, epenthesis before *-[sito]* will be allowed as a second option in all cases where it rescues a violation of IDENT-OO, therefore yielding the ranking IDENT-OO >>Align-Dim. This accounts for epenthesis as a second option in bases ending in a diphthong and in bases trisyllabic or longer ending in unstressed /e/.

2.5 Constraints Responsible for Irregularities

The rejection of diminutivization observed in bases that end in hiatus was explained as the result of diminutivization militating against the principle of emergence of the unmarked in these cases given that the optimal diminutive forms violate ONS

⁵⁸ Note that the difference in ranking may also account for dialectal variations (difference between present study and previous literature), in particular regarding diminutive formation of monosyllabic bases.

because of the constraint IDENT-OO. Since Spanish maximizes onsets, the optimal diminutive forms are not prosodically desirable (see section 3.4.1 in Chapter V).

A constraint banning adjacent [+cont] consonants, *[+cont], ranked lower than Align-Dim, explains the tendency to reject diminutivization in general, and to reject epenthesis as a second option, observed in words ending in /d/. The particular irregular behavior of the word *red* 'net' was accounted for as a result of the rejection of -[sito] given *[+cont], and as a result of having at hand the option of epenthesis (-[esito]), which is the second option for monosyllabic words in general given the conflict of rankings between StemMin and DISYLL.

Finally, two possible solutions were proposed for the irregular patterns of some words ending in /l/ that prefer -[ito] over -[sito]. One implies that /l/ is defined as [+cont], so that *[+cont] would correctly explain the rejection of -[sito] as it does for bases ending in /d/. The other was to postulate a constraint banning /l/ in coda position, *l]σ, ranked lower than Align-Dim so that epenthesis is also disfavored as it is in bases ending in /d/ (except monosyllables). However, both solutions are highly controversial because they lack motivation elsewhere in the grammar.

3. Guidelines for Further Study

The results of the survey conducted in Nicaragua confirm that diminutivization is a process that involves certain degree of preference and variability, emphasizing the need for studies that acknowledge such variability, not only within a given dialect, but also across dialects.

Within the Nicaraguan dialect, there is an obvious need for a more in-depth study of diminutivization of words ending in /l/, as well as for further development of the proposal of a historical change in constraint ranking involving DISYLL and StemMin, which I have claimed is responsible for the synchronic variability observed in monosyllabic words and disyllabic words ending in /e/.

Another interesting area that could be explored within the Nicaraguan dialect is the behavior of the *illo*-type diminutives, and compare its distributional pattern with the more common *ito*-type.

On a more general note, more studies similar to the one developed here need to be done in other dialects to allow for a better understanding of the degree of variability observed in diminutivization. The present analysis of diminutive formation in Nicaraguan Spanish might apply to several other dialects as well. An interesting and desirable line of research would be to investigate whether or not the analysis developed here can be configured easily, i.e. by different constraint ranking, to account for differences in the process of diminutive formation between dialects.

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Appendix I: Initial List of Words

Monosyllabic Words (1)

Vowel, light syllable:	té, fe
Vowel, heavy syllable:	pie, rey
Vowel, extraheavy syllable:	buey
Consonant, heavy syllable:	mes, pez, voz, cruz, tos, luz, paz, par, bar, mar, flor, plan, flan, col, sal, red, sed
Consonant, extraheavy syllable:	piel, miel, nuez

Disyllabic Words

LIGHT σ

Stressed ultima (2)

Vowel /a/:	papá, mamá, sofá
Vowel /e/:	café, paté, René
Other vowel:	ahí, allí, coquí, maní, pipí, rabí, rubí, menú, tabú, vurú, gurú

Stressed penultima (3)

Vowel /a/:	chicha, mecha, taza, casa, mesa, pena, teta, pila, tina, papa, mama, draga, vaga, rifa, bruja, lema, tema, cría
Vowel /o/:	techo, plato, pato, perro, gato, niño, carro, brazo, liso, jugo, cabro, lazo, rabo, lobo, globo, flaco
Vowel /e/:	leche, noche, chiche, coche, cine, broche, frase, ave, traje, llave, pobre, torre, nube, cruce, bache, jefe, cable, roble, doble, chicle, bucle, rifle, chile, mole, prole, hule, calle, talle, valle, ene, pene, eñe, Pepe, gripe, tope, libre, cobre, sobre, ubre, cofre, tigre, mugre, ere, erre, catre, base, clase, frase, yate, bote, lote, brote, cheque, duque, clave, nave, grave
Other vowel:	tribu

HEAVY σ

Stressed ultima (4)

Consonant:	maldad, piedad, ciudad, ardid, quietud, virtud, control, pastel, guacal, fiscal, timbal, caudal, fangal, normal, central, ostral, portal, maizal, pincel, corcel, burdel, charnel, mantel, pastel, marfil, gentil, reptil, volcán, caimán, champán, faisán, sultán, fustán, desván, desdén, sartén, sostén, jardín, delfín, violín, jazmín, Martín, pasquín, chambón, bombón, trombón, rincón, horcón, colchón, perdón, mandón, cordón, nalgón, pulmón, sermón, pompón, raspón, hartón, tostón, mentón, furgón, frentón, calzón, tractor, siamés, disfraz
Diphthong:	traspíe, convoy

Stressed penultima (5)

Diphthong /a/:	lengua
Diphthong /o/:	indio, cambio, juicio

Consonant: césped, árbol, cárcel, ángel, mármol, cónsul, álbum, virgen, Carmen, germen, cóndor, ámbar

Heavy penultima/light ultima

Stressed ultima (6)

Vowel /e/: corsé

Other vowel: bambú

Stressed penultima (7)

Vowel /a/: falda, colcha, bomba, manta, mancha, pinta, percha, chorch, lista, tierra, piedra, ciega, niebla, cuadra, cuita, chamba, ganga, manga, ninfa

Vowel /o/: bombo, palco, chancho, rancho, menso, tonto, casco, fresco, teatro, diablo, cielo, tieso, nieto, cuecho, cuello, huevo

Vowel /e/: hombre, canje, gente, frente, chinche, pinche, chunche, punche, tinte, tarde, arte, corte, paste, alce, urbe, dulce, trance, porche, tilde, molde, borde, grande, Jorge, simple, firme, chisme, carne, cisne, tizne, gozne, golpe, herpe, torpe, hambre, mimbre, timbre, nombre, cumbre, sangre, sastrer, lente, monte, marte, parte, traste, peste, chiste, triste, poste, chingue, trueque, tanque, parque, bosque, aire, peine, viaje, baile, fraile, naipe, fiebre, pliegue, cierre, nieve, cuate, suave, buitre, miope, mueble, muelle

Heavy ultima/light penultima

Stressed ultima (8)

Consonant: abad, edad, pared, David, salud, vocal, pedal, trigal, comal, final, pañal, señal, puñal, nopal, coral, corral, morral, mural, plural, rosal, papel, fatal, metal, total, rival, bozal, pichel, panel, clavel, nivel, senil, barril, fusil, sutil, frijol, pinol, farol, perol, atol, coyol, azul, harem, imán, refrán, corán, patán, satán, diván, jayán, rehén, Belén, retén, Caín, cojín, balín, chelín, mitín, motín, jabón, bribón, tacón, bocón, tocón, chichón, ladrón, bufón, dragón, fogón, chiflón, ciclón, salón, melón, pelón, soplón, limón, matón, patrón, pezón, atún, betún, collar, mujer, mejor, raíz

Stressed penultima (9)

Diphthong /a/: tapia, fobia, línea, tráquea, tregua, agua, nagua, cegua, rabia, lluvia, rubia,

Diphthong /o/: radio, cráneo [krányo], patio, sabio, tibio

Diphthong /e/: serie, tenue

Consonant: túnel, hábil, débil, fácil, dócil, frágil, fósil, crimen, joven, gafas, dosis, tesis

EXTRAHEAVY σ

Extraheavy penultima/light ultima

Stressed penultima (10)

Vowel /a/: mierda, pierna, rienda, tierna, siesta, cuesta, huerta, muestra, puerta, tuerta

Vowel /o/: lienzo, huerto, muerto, puerto, puesto
 Vowel /e/: tiangue, diente, cliente, liendre, vientre, guante, duende, fuente, puente, fuerte, muerte, suerte

Extraheavy penultima/heavy ultima

Stressed ultima (11)

Diphthong /a/: ciencia

Consonant: crueldad, cuartel, dientón

Extraheavy ultima/light penultima

Stressed ultima (12)

Consonant: jovial, ideal, cereal, filial, venial, igual, casual, ritual, rufián, pipián, avión, camión, región, nación, pasión, ración, visión, zaguán

Extraheavy ultima/heavy penultima

Stressed ultima (13)

Consonant: mundial, bestial, campeón [kampyón], canción, mansión, panteón [pantyón], pensión, mensual, sensual, puntual

Trisyllabic Words

LIGHT σ

Stressed ultima (14)

Vowel /a/: Canadá, Panamá

Vowel /e/: bisoñé, canapé, comité

Other vowel: jabalí, colibrí, popurrí, maniquí

Stressed penultima (15)

Vowel /a/: palabra, chamaca, pomada, cuchara, mojarra, linaza, tarea, idea, culebra, cafetera, pesera, retratera, tetera, meseta, bicicleta, pispireta, maleza, María, profecía, judía, homilía, melancolía, calcomanía, monotonía, sintonía, tubería, carnicería, panadería, majadería, chanchería, lavandería, algarabía, matraca, alharaca, marea, chimenea, bodega, camisa, cejuda, arriba, jirafa, aguja, melodrama, telegrama, crucigrama, edema, dilema, canoa

Vowel /o/: cacao, pelado, pesado, rosado, payaso, ligero, mesero, secreto, garrobo, sobaco, icaco, maravilloso, numeroso, famoso, generoso, lechoso, terremoto, caprichudo

Vowel /e/: zacate, pesebre, cumiche, chelique, bigote, chayote, jocote, zopilote, jarabe, Caribe, adobe, mapache, cachivache, ceviche, mequetrefe, hospedaje, homenaje, masaje, sabotaje, hereje, motete, pelele, atole, comadre, vinagre, alegre, pupitre, mecate, zanate, piñonate, disparate, ribete, machete, cachete, bufete, taburete, tapete, copete, chupete, juguete, boquete, achote, chilote, zapote, cipote, cerote, ayote, cacique

Stressed antepenultima (16)

- Vowel /a/: fábula, metáfora, lágrima, célula, molécula, mandíbula, película, Calígula, canícula, partícula, vesícula, brújula, burócrata, demócrata, ópera, pródiga
- Vowel /o/: mísero, clítico, crítico, público, cubículo, montículo, testículo, velocípedo, endrógeno, estrambótico, kilómetro, afrodisíaco
- Vowel /e/: títere, fúnebre, árabe, hélice, pirámide, trípode, pésame, trámite
- Other vowel: metrópoli, brócoli

HEAVY σ**Stressed ultima (17)**

- Consonant: ansiedad, corresponsal, trascendental, alguacil, infantil, almohadón [almwadón], respondón, escuadrón, tentempié

Stressed penultima (18)

- Diphthong /a/: urgencia, ausencia, nostalgia, neuralgia
- Diphthong /o/: balneario

Heavy antepenultima/light penultima/light ultima**Stressed ultima (19)**

- Other vowel: bisturí, ajonjolí

Stressed penultima (20)

- Vowel /a/: ventana, chancleta, excusa, aldaba, alcoba, manteca, huesuda, tifoidea, estafa, estrofa, hormiga, alcaldía, mercancía, picardía, penitenciaría, sombría, oligarquía, monarquía, poesía, ventaja, mortaja, lenteja, sortija, lagartija, sabandija, guaraca, directiva, diagrama, sistema, cardiograma
- Vowel /o/: cansado, delgado, mercado, espejo, pendejo, calzoncillo, ruidoso, guayabo
- Vowel /e/: compadre, aguacate, sacerdote, estuche, enlace, enchufe, ultraje, paisaje, mensaje, voltaje, chantaje, porcentaje, salvaje, desfile, perfume, escape, rompopo, jengibre, envase, combate, rescate, magnate, gazzate, sorbete, corchete, juanete, membrete, banquete, escondite, confite, escote, sacerdote, empaque

Stressed antepenultima (21)

- Vowel /a/: atmósfera, lámpara, pérgola, síntoma, sonámbula, fórmula, península, víctima, mayúscula, albóndiga, hipérbola
- Vowel /o/: péndulo, higiénico, mórbido, cálculo
- Vowel /e/: catástrofe, índice, cómplice, cúspide, cónyuge, síndrome, príncipe

Heavy antepenultima/heavy penultima/light ultima**Stressed ultima (22)**

- Vowel /e/: chimpancé

Stressed penult (23)

- Vowel /a/: almohada [almwada], esponja, alfalfa, escuela, espuela,

Vowel /o/: asfalto, cuaderno, menguado, anzuelo, circuito,
 Vowel /e/: restaurante, enclenque, percance, concorde, esfinge, conserje, menjurge,
 empalme, costumbre, esmalte, turbante, refrescante, parlante, diamante,
 detergente, alpiste

Heavy antepenultima/light penultima/heavy ultima

Stressed ultima (24)

Diphthong /e/: buscapié, puntapié

Consonant: enfermedad, falsedad, terquedad, brusquedad, locuacidad, heroicidad,
 profundidad, realidad, especialidad, cordialidad, bestialidad, trivialidad,
 cualidad, mensualidad, deformidad, dignidad, curiosidad, monstruosidad,
 universidad, cantidad, honestidad, suavidad, magnitud, hospital, guayabal,
 vertical, concejal, cardenal, berenjenal, arsenal, terminal, albañal, espiral,
 temporal, cultural, vendaval, carnaval, festival, pastizal, albañil, español,
 guayacán, alquitrán, charlatán, orangután, holgazán, almacén, calcetín,
 trampolín, bailarín, corbatín, aldabón, salpicón, algodón, retorcijón,
 resbalón, canjilón, dormilón, pantalón, refunfuñón, cascarón, hinchazón

Stressed penultima (25)

Diphthong /a/: audacia, desgracia, farmacia, Escocia, Virginia, secundaria, voluntaria,
 sectaria, pituitaria, Victoria, historia, injuria, hectárea, gimnasia

Diphthong /e/: superficie, especie, calvicie, barbarie, intemperie

Consonant: Cristóbal, inmóvil, imbécil, certamen, dictamen, abdomen, Esteban,
 almíbar

Stressed antepenultima (26)

Consonant: síntesis

Heavy penultima/light antepenultima/light ultima

Stressed penult (27)

Vowel /a/: pachanga, coyunda, cazuela, caramba, fritanga, jeringa, tiniebla, cajuela,
 rayuela, enigma, moribunda, naranja

Vowel /o/: pedigüeño, excremento, funesto, ambicioso, bullicioso, curioso, malicioso,
 cachimbo, abuelo, buñuelo

Vowel /e/: derrumbe, brillante, elegante, pedante, presidente, bochinche, Malinche,
 relinche, balance, romance, avance, espermatozoide, rebelde, humilde,
 cobarde, laringe, oleaje, tatuaje, carruaje, eclipse, deforme, uniforme,
 alambre, legumbre, mediocre, desaire, desastre, cacahuete, chagüite,
 aceite, elefante, volante, tirante, chichicaste, reporte, resorte, celeste,
 merengue

Heavy penultima/light antepenultima/heavy ultima

Stressed ultima (28)

Consonant: sociedad, suciedad, nimiedad, propiedad, contrariedad, variedad, ebriedad,
 seriedad, ambigüedad, antigüedad, espontaneidad, ingenuidad, vecindad,

facultad, amistad, mariscal, naranjal, regional, sucursal, delantal, semental, documental, caramanchel, proyectil, musulmán, sacristán, volantín, Agustín

Stressed penultima (29)

Diphthong /a/: soberbia, fragancia, misericordia, California, calumnia

Consonant: memorándum, referéndum, desorden, hemorroides, bilingüe

Heavy ultima/light antepenultima/light penultima

Stressed ultima (30)

Consonant: popularidad, necedad, soledad, humedad, gravedad, novedad (in)capacidad, voracidad, vivacidad, publicidad, (in)felicidad, simplicidad, complicidad, electricidad, exentricidad, autenticidad, elasticidad, velocidad, ferocidad, reciprocidad, atrocidad, (in)comodidad, complejidad, calidad, localidad, formalidad, personalidad, normalidad, fatalidad, hospitalidad, vitalidad, mentalidad, brutalidad, rivalidad, probabilidad, amabilidad, (ir)responsabilidad, debilidad, posibilidad, calamidad, afinidad, unidad, comunidad, oportunidad, necesidad, generosidad, actividad, solicitud, gratitud, ataúd, animal, musical, tropical, bifocal, nacatamal, bacanal, catedral, cañaveral, chaparral, matorral, papasal, cachipil, vegetal, capital, arrozal, perejil, varonil, cuchitril, caracol, huracán, celofán, haragán, gavilán, capellán, ademán, tulipán, alacrán, alcaraván, camisolín, chapulín, tallarín, aserrín, cafetín, maletín, faraón, hocicón, maricón, bravucón, paredón, garrafón, bodegón, batallón, vigorón, camarón, biberón, moretón, carretón, picazón, corazón, borrador, retrovisor, samurai

Stressed penultima (31)

Diphthong /a/: Managua, cesárea [sesárya], venérea [benérya], miscelánea [miselány], tragedia, familia, hemorragia, epidemia, plegaria, lujuria, iglesia

Diphthong /o/: cartapacio, orificio, portafolio, manicomio, residuo, mediterráneo [mediterrányo], boticario

Diphthong /e/: efigie, planicie

Consonant: caníbal, difícil, inútil, automóvil, aborigen, imagen, examen, volumen, resumen, tijeras, azúcar

Stressed antepenultima (32)

Consonant: espécimen, régimen

EXTRAHEAVY σ

Extraheavy antepenultima/light penultima/light ultima

Stressed penult (33)

Vowel /a/: excusa

Extraheavy penultima/light antepenultima/light ultima**Stressed penultima (34)**

Vowel /a/: hacienda, merienda, hedionda

Vowel /e/: maliante, paciente, caliente, estudiante

Extraheavy penultima/heavy antepenultima/heavy ultima**Stressed penultima (35)**

Diphthong /a/: consciencia

Consonant: estiércol

Extraheavy penultima/light antepenultima/heavy ultima**Stressed ultima (36)**

Consonant: oriental

Stressed penultima (37)

Diphthong /a/: paciencia

Extraheavy penultima/heavy antepenultima/light ultima**Stressed penultima (38)**

Vowel /a/: vergüenza

Vowel /e/: pendiente, serpiente, delincuente

Extraheavy ultima/light antepenultima/light penultima**Stressed ultima (39)**

Consonant: oficial, material, editorial, religión, vacación, publicación, vocación, equivocación, provocación, educación, delegación, obligación, instalación, operación, población, relación, inflamación, donación, celebración, participación, autorización, televisión, camaleón [kamalyón]

Extraheavy ultima/heavy antepenultima/light penultima**Stressed ultima (40)**

Consonant: superficial, marsupial, embarcación, confiscación, conversación, inundación, purgación, inflación, violación, información, indignación, rendición, explosión [esplosión], confusión, conclusión

Extraheavy ultima/heavy antepenultima/heavy penultima**Stressed ultima (41)**

Consonant: denuncia, pronunciación, enunciación, desviación

Extraheavy ultima/light antepenultima/heavy penultima**Stressed ultima (42)**

Consonant: credencial, esencial, primordial, manantial, asociación, negociación

Appendix II: Preliminary List of Words for Survey

Monosyllabic (1)

sol
flor
pan
té
bar
red
rey
buey
miel

All light, stressed ultima (2)

rubí
tabú
papá

All light, stressed penult. (3)

chiche
catre
bucle
ubre
pene
mama

All heavy, stressed ultima (4)

ciudad
virtud
guacal
fustán
burdel
tostón
pintor
convoy

All heavy, stressed penult. (5)

álbum
césped
juicio

Heavy penult./light ultima, stressed ultima (6)

bambú

Heavy penult./light ultima, stressed penult. (7)

punche
chinche
paste
molde
mimbre
sastre
monte
peste
naipe
baile
muelle
fiebre
chingue

Heavy ultima/light penult., stressed ultima (8)

pared
salud
coyol
chelín
mejor

Heavy ultima/light penult., stressed penult. (9)

cegua
tapia
rubia
radio
débil
crimen
gafas

Extraheavy penult./light ultima, stressed penult. (10)

liendre
suerte
diente

Extraheavy ultima/light penult., stressed ultima (12)

pipián
cereal
zagúan

Extraheavy ultima/heavy penult., stressed ultima (13)

bestial
mansión

All light, stressed ultima (14)

colibrí
comité

All light, stressed penult. (15)

panadería
marea
zanate
llorona

All light, stressed antepenult. (16)

árabe
trámite

All heavy, stressed ultima (17)

corresponsal
ansiedad
escuadrón

All heavy, stressed penult. (18)

nostalgia
balneario [balnyáryo]

Heavy antepenult./light penult./light ultima, stressed penult. (20)

alcaldía
poesía [pwesía]
jengibre
juanete

Heavy antepenult./heavy penult./light ultima, stressed penult. (23)

empalme

Heavy antepenult./light penult./heavy ultima, stressed ultima (24)

universidad
guayabal
salpicón
buscapié

Heavy antepenult./light penult./heavy ultima, stressed penult. (25)

farmacia
superficie
imbécil
abdomen
almíbar

Heavy penult./light antepenult./light ultima, stressed penult. (27)

chichicaste
chagüite

Heavy penult./light antepenult./heavy ultima, stressed ultima (28)

vecindad
caramanchel
volantín

Heavy penult./light antepenult./heavy ultima, stressed penult. (29)

calumnia
memorándum

Heavy ultima/light antepenult./light penult., stressed ultima (30)

ataúd
solicitud
posibilidad
localidad
nacamamal
cachipil
vigorón
retrovisor

Heavy ultima/light antepenult./light penult., stressed penult. (31)

miscelánea [miselánya]

iglesia

boticario

manicomio

difícil

examen

azúcar

tijeras

Extraheavy ultima/light antepenult./light penult., stressed ultima (39)

inflamación

Extraheavy ultima/heavy antepenult./light penult., stressed ultima

confusión

Total number of words: 115

17.	salpicón	_____	_____	_____
18.	fustán	_____	_____	_____
19.	tijeras	_____	_____	_____
20.	árabe	_____	_____	_____
21.	red	_____	_____	_____
22.	almíbar	_____	_____	_____
23.	cegua	_____	_____	_____
24.	buscapié	_____	_____	_____
25.	tabú	_____	_____	_____

II. Ejercicio de Selección:

A continuación escuchará una lista de palabras y varias alternativas de diminutivos. Cada palabra y sus alternativas serán repetidas dos veces. Ud. tendrá unos minutos para calificar las alternativas con los números 1, 2, 3 ó 4.

- | | |
|----------|-------------------------------|
| 1 | mejor opción |
| 2 | segunda mejor opción |
| 3 | tercera mejor opción |
| 4 | inaceptable, imposible |

Si varias formas le parecen inaceptables o imposibles, márkelas todas con el número 4. Recuerde: no es importante si es "correcto" o no, simplemente si le SUENAN bien y cuál de todas le suena mejor.

Ejemplo: Ud. escucha lo siguiente: Perro a) Perrito b) Perrecito c) Persito

Ud. escribe:

a) 1 b) 4 c) 4

- | | | | | |
|----|----------|----------|----------|----------|
| 1. | a) _____ | b) _____ | c) _____ | d) _____ |
| 2. | a) _____ | b) _____ | c) _____ | d) _____ |
| 3. | a) _____ | b) _____ | c) _____ | d) _____ |
| 4. | a) _____ | b) _____ | c) _____ | d) _____ |
| 5. | a) _____ | b) _____ | c) _____ | d) _____ |
| 6. | a) _____ | b) _____ | c) _____ | d) _____ |
| 7. | a) _____ | b) _____ | c) _____ | d) _____ |

8. a) _____ b) _____ c) _____ d) _____
9. a) _____ b) _____ c) _____ d) _____
10. a) _____ b) _____ c) _____ d) _____
11. a) _____ b) _____ c) _____ d) _____
12. a) _____ b) _____ c) _____ d) _____
13. a) _____ b) _____ c) _____ d) _____
14. a) _____ b) _____ c) _____ d) _____
15. a) _____ b) _____ c) _____ d) _____
16. a) _____ b) _____ c) _____ d) _____
17. a) _____ b) _____ c) _____ d) _____
18. a) _____ b) _____ c) _____ d) _____
19. a) _____ b) _____ c) _____ d) _____
20. a) _____ b) _____ c) _____ d) _____
21. a) _____ b) _____ c) _____ d) _____
22. a) _____ b) _____ c) _____ d) _____
23. a) _____ b) _____ c) _____ d) _____
24. a) _____ b) _____ c) _____ d) _____
25. a) _____ b) _____ c) _____ d) _____

Appendix IV: Recorded Part – Pilot Study ¹

II. Ejercicio de Selección:

A continuación escuchará una lista de palabras y varias alternativas de diminutivos. Cada palabra y sus alternativas serán repetidas dos veces. Ud. tendrá unos minutos para calificar las alternativas con los números 1, 2, 3 ó 4.

- | | |
|----------|-------------------------------|
| 1 | mejor opción |
| 2 | segunda mejor opción |
| 3 | tercera mejor opción |
| 4 | inaceptable, imposible |

Si varias formas le parecen inaceptables o imposibles, márkelas todas con el número 4. Recuerde: no es importante si es "correcto" o no, simplemente si le SUENAN bien y cuál de todas le suena mejor.

Ejemplo:	Ud. escucha lo siguiente: Perro	a) Perrito	b) Perrecito	c)
Persito				
	Perro	a) Perrito	b) Perrecito	c)
Persito				
	Ud. escribe:			
	a) <u> 1 </u>	b) <u> 4 </u>	c) <u> 4 </u>	

- | | | | | |
|----|------------------|------------------------------|--------------------------------|----------------------------------|
| 1. | miel
miel | a) mielita
a) mielita | b) mielecita
b) mielecita | c) mielsita
c) mielsita |
| 2. | molde
molde | a) moldito
a) moldito | b) moldecito
b) moldecito | |
| 3. | comité
comité | a) comitito
a) comitito | b) comitecito
b) comitecito | |
| 4. | catre
catre | a) catrito
a) catrito | b) catrecito
b) catrecito | |
| 5. | naipe
naipe | a) naipito
a) naipito | b) naipecito
b) naipecito | |
| 6. | mama
mama | a) mamita
a) mamita | b) mamacita
b) mamacita | |
| 7. | ciudad
ciudad | a) ciudadita
a) ciudadita | b) ciudadsita
b) ciudadsita | c) ciudadecita
c) ciudadecita |

¹ Spelling here reflects the way words are pronounced. For example, note the spelling of 19) *balneario* 'seaside resort', as *balniario*, and 21) *poesía* 'poetry', as *puesía*.

8. chagüite a) chagüítito b) chagüitesito
chagüite a) chagüítito b) chagüitesito
9. buey a) bueyito b) bueysito c) bueyesito
buey a) bueyito b) bueysito c) bueyesito
10. abdomen a) abdomenito b) abdomensito c) abdomenesito
abdomen a) abdomenito b) abdomensito c) abdomenesito
11. ataúd a) ataudito b) ataudsito c) ataudesito
ataúd a) ataudito b) ataudsito c) ataudesito
12. farmacia a) farmacita b) farmaciíta c) farmaciecita
farmacia a) farmacita b) farmaciíta c) farmaciecita
13. sol a) solito b) solsito c) solecito
sol a) solito b) solsito c) solecito
14. papá a) papito b) papacito
papá a) papito b) papacito
15. llorona a) lloronita b) lloronsita c) lloronesita
llorona a) lloronita b) lloronsita c) lloronesita
16. flor a) florita b) florsita c) floresita
flor a) florita b) florsita c) floresita
17. panadería a) panaderita b) panaderiíta c) panaderiecita
panadería a) panaderita b) panaderiíta c) panaderiecita
18. punche a) punchito b) punchesito
punche a) punchito b) punchesito
19. balnario a) balniarito b) balnariíto c) balnariécito
balnario a) balniarito b) balnariíto c) balnariécito
20. chingue a) chinguito b) chinguesito
chingue a) chinguito b) chinguesito
21. puesía a) puesita b) puesííta c) puesiesita
puesía a) puesita b) puesííta c) puesiesita
22. débil a) debilito b) debilsito c) debilesito
débil a) debilito b) debilsito c) debilesito

23. liendre a) liendrita b) liendresita
liendre a) liendrita b) liendresita
24. radio a) radito b) radiíto c) radiecito
radio a) radito b) radiíto c) radiecito
25. monte a) montito b) montesito
monte a) montito b) montesito

- | | | | |
|--------------|-------|-------|-------|
| 17. salpicón | _____ | _____ | _____ |
| 18. fustán | _____ | _____ | _____ |
| 19. tijeras | _____ | _____ | _____ |
| 20. árabe | _____ | _____ | _____ |
| 21. red | _____ | _____ | _____ |
| 22. almíbar | _____ | _____ | _____ |
| 23. cegua | _____ | _____ | _____ |
| 24. buscapié | _____ | _____ | _____ |
| 25. tabú | _____ | _____ | _____ |

II. Ejercicio de Selección:

A continuación escuchará una lista de palabras y varias alternativas de diminutivos. Cada palabra y sus alternativas serán repetidas dos veces. Ud. tendrá unos minutos para calificar las alternativas con los números 1, 2, 3 ó 4.

- | | |
|----------|-------------------------------|
| 5 | mejor opción |
| 6 | segunda mejor opción |
| 7 | tercera mejor opción |
| 8 | inaceptable, imposible |

Si varias formas le parecen inaceptables o imposibles, márkelas todas con el número 4. Recuerde: no es importante si es "correcto" o no, simplemente si le SUENAN bien y cuál de todas le suena mejor.

Ejemplo: Ud. escucha lo siguiente: Perro a) Perrito b) Perrecito c) Persito

Ud. escribe:

a) 1 b) 4 c) 4

- | | | | |
|----|----------|----------|----------|
| 1. | a) _____ | b) _____ | |
| 2. | a) _____ | b) _____ | c) _____ |
| 3. | a) _____ | b) _____ | c) _____ |
| 4. | a) _____ | b) _____ | c) _____ |
| 5. | a) _____ | b) _____ | c) _____ |
| 6. | a) _____ | b) _____ | |
| 7. | a) _____ | b) _____ | |
| 8. | a) _____ | b) _____ | |

1	mejor opción
2	segunda mejor opción
3	tercera mejor opción
4	inaceptable, imposible

9. a) _____ b) _____
10. a) _____ b) _____
11. a) _____ b) _____ c) _____
12. a) _____ b) _____
13. a) _____ b) _____ c) _____
14. a) _____ b) _____ c) _____
15. a) _____ b) _____ c) _____
16. a) _____ b) _____ c) _____
17. a) _____ b) _____ c) _____
18. a) _____ b) _____
19. a) _____ b) _____ c) _____
20. a) _____ b) _____ c) _____
21. a) _____ b) _____ c) _____
22. a) _____ b) _____
23. a) _____ b) _____ c) _____
24. a) _____ b) _____
25. a) _____ b) _____ c) _____
26. a) _____ b) _____ c) _____
27. a) _____ b) _____
28. a) _____ b) _____ c) _____
29. a) _____ b) _____
30. a) _____ b) _____ c) _____

Appendix VI: Recorded Part – Final Survey ¹

II. Ejercicio de Selección:

A continuación escuchará una lista de palabras y varias alternativas de diminutivos. Cada palabra y sus alternativas serán repetidas dos veces. Ud. tendrá unos minutos para calificar las alternativas con los números 1, 2, 3 ó 4.

- | | |
|----------|-------------------------------|
| 5 | mejor opción |
| 6 | segunda mejor opción |
| 7 | tercera mejor opción |
| 8 | inaceptable, imposible |

Si varias formas le parecen inaceptables o imposibles, márkelas todas con el número 4. Recuerde: no es importante si es "correcto" o no, simplemente si le SUENAN bien y cuál de todas le suena mejor.

Ejemplo: Ud. escucha lo siguiente: Perro a) Perrito b) Perrecito c) Persito

Persito Perro a) Perrito b) Perrecito c)

Persito

Ud. escribe:

a) 1 b) 4 c) 4

Recuerde:

- | | |
|----------|-------------------------------|
| 1 | mejor opción |
| 2 | segunda mejor opción |
| 3 | tercera mejor opción |
| 4 | inaceptable, imposible |

- | | | | | |
|----|-----------|-----------------|------------------|-------------------|
| 1. | chancho | a) chanchito | b) chanchecito | |
| | chancho | a) chanchito | b) chanchecito | |
| 2. | cielo | a) cielito | b) cielsito | c) cielecito |
| | cielo | a) cielito | b) cielsito | c) cielecito |
| 3. | explosión | a) explosionita | b) explosionsita | c) explosionecita |
| | explosión | a) explosionita | b) explosionsita | c) explosionecita |

¹ Spelling here reflects the way words are pronounced. For example, note the spelling of 23) *balneario* 'seaside resort', as *balniario*, and 25) *poesía* 'poetry', as *puesía*.

- | | | | | |
|-----|----------------------|--------------------------------|------------------------------------|------------------------------------|
| 4. | buñuelo
buñuelo | a) buñuelito
a) buñuelito | b) buñuelsito
b) buñuelsito | c) buñuelesito
c) buñuelesito |
| 5. | miel
miel | a) mielita
a) mielita | b) mielsita
b) mielsita | c) mielecita
c) mielecita |
| 6. | molde
molde | a) moldito
a) moldito | b) moldecito
b) moldecito | |
| 7. | comité
comité | a) comitito
a) comitito | b) comitecito
b) comitecito | |
| 8. | catre
catre | a) catrito
a) catrito | b) catrecito
b) catrecito | |
| 9. | naipe
naipe | a) naipito
a) naipito | b) naipecito
b) naipecito | |
| 10. | mama
mama | a) mamita
a) mamita | b) mamacita
b) mamacita | |
| 11. | ciudad
ciudad | a) ciudadita
a) ciudadita | b) ciudadsita
b) ciudadsita | c) ciudadecita
c) ciudadecita |
| 12. | chagüite
chagüite | a) chagüitito
a) chagüitito | b) chagüitesito
b) chagüitesito | |
| 13. | buey
buey | a) bueyito
a) bueyito | b) bueysito
b) bueysito | c) bueyesito
c) bueyesito |
| 14. | abdomen
abdomen | a) abdomenito
a) abdomenito | b) abdomensito
b) abdomensito | c) abdomenesito
c) abdomenesito |
| 15. | ataúd
ataúd | a) ataudito
a) ataudito | b) ataudsito
b) ataudsito | c) ataudesito
c) ataudesito |
| 16. | farmacia
farmacia | a) farmacita
a) farmacita | b) farmaciíta
b) farmaciíta | c) farmaciecita
c) farmaciecita |
| 17. | sol
sol | a) solito
a) solito | b) solsito
b) solsito | c) solecito
c) solecito |

- | | | | | |
|-----|------------------------|--------------------------------|----------------------------------|--------------------------------------|
| 18. | papá
papá | a) papito
a) papito | b) papacito
b) papacito | |
| 19. | llorona
llorona | a) lloronita
a) lloronita | b) lloronsita
b) lloronsita | c) lloronesita
c) lloronesita |
| 20. | flor
flor | a) florita
a) florita | b) florsita
b) florsita | c) floresita
c) floresita |
| 21. | panadería
panadería | a) panaderita
a) panaderita | b) panaderiíta
b) panaderiíta | c) panaderiecita
c) panaderiecita |
| 22. | punche
punche | a) punchito
a) punchito | b) punchesito
b) punchesito | |
| 23. | balniario
balniario | a) balniarito
a) balniarito | b) balniariíto
b) balniariíto | c) balniariecito
c) balniariecito |
| 24. | chingue
chingue | a) chinguito
a) chinguito | b) chinguesito
b) chinguesito | |
| 25. | puesía
puesía | a) puesita
a) puesita | b) puesíita
b) puesíita | c) puesiesita
c) puesiesita |
| 26. | débil
débil | a) debilito
a) debilito | b) debilsito
b) debilsito | c) debilesito
c) debilesito |
| 27. | liendre
liendre | a) liendrita
a) liendrita | b) liendresita
b) liendresita | |
| 28. | radio
radio | a) radito
a) radito | b) radiíto
b) radiíto | c) radiecito
c) radiecito |
| 29. | monte
monte | a) montito
a) montito | b) montesito
b) montesito | |
| 30. | túnel
túnel | a) tunelito
a) tunelito | b) tunnelsito
b) tunnelsito | c) tunelecito
c) tunelecito |

Appendix VII: General Instructions¹

Instrucciones Generales

Muchas gracias a todos por participar en este estudio. El objetivo de esta encuesta es saber cuáles son las formas de diminutivos que se usan en Nicaragua y, entre las que se usan, cuáles son las más comunes. Un ejemplo de diminutivo es: perro, perrito.

Para asegurar que la encuesta cumpla con su objetivo, nos gustaría hacer hincapié en lo siguiente:

- Es muy importante que sus respuestas reflejen lo que DICE la gente, y no lo que se considera “CORRECTO”. No existe una respuesta correcta o incorrecta. Esto no es un examen y no hay puntuación. Lo correcto es, simplemente, lo que dice la gente.
- Por eso, es mejor si confían en sus instintos y escriben la primera forma o formas que se les ocurran sin pensarlo dos veces y lo más rápido posible.
- Es preferible que, una vez que hayan contestado una pregunta, no se regresen a cambiarla.
- En todas las partes de la encuesta, es posible escribir varias alternativas poniendo la más común primero. También es posible que no exista un diminutivo y tengan que escribir NINGUNA como respuesta.

La encuesta consta de dos partes. La primera es toda en papel, pero para la segunda necesitarán escuchar una cinta grabada con las instrucciones y las preguntas. Tendrán 10 minutos para completar la primera parte. La segunda parte, la parte grabada, dura alrededor de 20 minutos. La encuesta en total se llevará como mucho 30 ó 40 minutos.

De nuevo, muchas gracias por su participación y colaboración. Esperamos que ésta sea una experiencia interesante y divertida para todos.

¹ An English translation is provided on the next page.

General Instructions (Translation)

Thank you for participating in this study. The goal of this survey is to find out which are the diminutive forms that are used in Nicaragua, and which are the most common among the ones used. An example of a diminutive is: perro (*'dog'*), perrito (*'little dog'*).

We would like to emphasize the following in order for the survey to be successful in attaining its goal:

- It is very important that your answers reflect what people say, and not what is considered "CORRECT". There is no correct or incorrect answer. This is not a test and it will not be graded. The correct form is, simply, what people say.
- Consequently, it is better to trust your intuitions and write down the first form or forms that come to mind without giving it a second thought. Thus, respond as quickly as possible.
- It is better not to go back to change any answer once you have completed an item.
- It is possible to write several alternatives in all the exercises of this survey. You should always write the most common one first. It is also possible to write NONE as an answer if you think that there is no diminutive form.

The survey has two parts. The first one is all on paper, but for the second part you will need to listen to a recording with the instructions and the questions. You will have 10 minutes to complete the first part. The second one, the recorded exercise, lasts approximately 20 minutes. You will need 30 or 40 minutes maximum to complete the survey.

We want to thank you again for your participation and collaboration. We hope this will be a very interesting and fun experience for all.

**Appendix VIII:
Phonetic Transcription and Translation of Words Included in Final Survey¹**

I. Production Exercise

Word	Transcription	Translation
1. burdel	[bur.dél]	<i>brothel</i>
2. césped	[sés.peð] or [sés.pe]	<i>lawn</i>
3. diente	[dyén.te]	<i>tooth</i>
4. pan	[pán]	<i>bread</i>
5. bar	[bár]	<i>bar</i>
6. chiche	[č í.če]	<i>easy</i>
7. salud	[sa.lúð] or [sa.lú]	<i>health</i>
8. álbum	[ál.bum]	<i>album</i>
9. pene	[pé.ne]	<i>penis</i>
10. vecindad	[be.sin.dáð] or [be.sin.dá]	<i>neighborhood</i>
11. solicitud	[so.li.si.túð] or [so.li.si.tú]	<i>application</i>
12. té	[té] or [te:]	<i>tea</i>
13. corresponsal	[ko.res.pon.sál]	<i>newspaper correspondent</i>
14. rey	[réy]	<i>king</i>
15. pintor	[pin.tór]	<i>paintor</i>
16. juanete	[hwa.né.te]	<i>bonion</i>
17. salpicón	[sal.pi.kón]	<i>salmagundi</i>
18. fustán	[fus.tán]	<i>underskirt</i>
19. tijeras	[ti.hé.ras]	<i>scissors</i>
20. árabe	[á.ra.be]	<i>Arabic/Arab</i>
21. red	[réð] or [ré:]	<i>net</i>
22. almíbar	[al.mí.bar]	<i>caramelized fruit dessert</i>
23. cegua	[sé.gwa]	<i>Nicaraguan mythical animal</i>
24. buscapié	[bus.ka.pyé]	<i>firecracker</i>
25. tabú	[ta.bú]	<i>taboo</i>

¹ Transcription is phonemic, with the exception of the predictable feature [+continuant] of word-final voiced obstruents /b,d/ because they are frequently deleted. Since they are word-final, their deletion is important for diminutive formation. [y, w] represent high glides from /i, u/ respectively.

II. Listening Exercise

Word	Transcription	Translation
1. chancho	[čán. čo]	<i>pig</i>
2. cielo	[syé.lo]	<i>sky</i>
3. explosión	[eks.plo.syón] or [es.plo.syón]	<i>explosion</i>
4. buñuelo	[bu.ñwé.lo]	<i>yucca pastry</i>
5. miel	[myél]	<i>honey</i>
6. molde	[mól.de]	<i>mould/pattern</i>
7. comité	[ko.mi.té]	<i>committee</i>
8. catre	[ká.tre]	<i>camp bed</i>
9. naipe	[náy.pe]	<i>playing card</i>
10. mama	[má.ma]	<i>mom, mother</i>
11. ciudad	[syu.dáð] or [syu.dá]	<i>city</i>
12. chagüite	[ča.gwí.te]	<i>banana plant or plantation</i>
13. buey	[bwéy]	<i>ox</i>
14. abdomen	[ab.dó.men]	<i>abdomen</i>
15. ataúd	[a.ta.úð] or [a.ta.ú]	<i>coffin</i>
16. farmacia	[far.má.sya]	<i>drugstore/farmacy</i>
17. sol	[sól]	<i>sun</i>
18. papá	[pa.pá]	<i>father</i>
19. llorona	[yo. ró.na]	<i>crybaby (feminine)</i>
20. flor	[flór]	<i>flower</i>
21. panadería	[pa.na.de.rí.a]	<i>bakery</i>
22. punche	[pún. če]	<i>type of crab</i>
23. balneario	[bal.nyá.ryo]	<i>seaside resort</i>
24. chingue	[čín.ge]	<i>cocoa drink</i>
25. poesía	[pwe.sí.a]	<i>poetry</i>
26. débil	[dé. bil]	<i>weak</i>
27. liendre	[lyén.dre]	<i>nit</i>
28. radio	[rá.dyo]	<i>radio</i>
29. monte	[món.te]	<i>tall grass/ a pile</i>
30. túnel	[tú.nel]	<i>tunnel</i>

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