WORDHOOD AT THE HEART OF PARAGUAYAN GUARANÍ MORPHOLOGY

MAKSYMILIAN DĄBKOWSKI AND KATHERINE R. RUSSELL UNIVERSITY OF CALIFORNIA, BERKELEY EXPLORING BOUNDARIES: PHONOLOGICAL DOMAINS IN THE LANGUAGES OF THE WORLD MARCH 13, 2025

1 INTRODUCTION

In this talk, we demonstrate that prosodic wordhood (and concomitant word stress) play a central role in the grammar of Paraguayan Guaraní (or PG, Tupian, 150 639-3: gug) and must be referenced to account for three different phenomena: suffix order, reduplication, and the spread of nasality.

The first two of these are morphological in nature. As such, we contribute a discussion of a rare pattern where morphological structure is determined by phonological considerations. Additionally, in showing that diverse morphological phenomena in PG make crucial reference to the same prosodic domain, we make a case that the notion of prosodic wordhood is central to the grammar of the language.

The rest of the talk is structured as follows. Section 2 provides background on the language. Section 3 describes and analyzes the language's stress-dependent suffix order. Section 4 analyzes the suffixes order as prosodically motivated. Section 5 extends the analysis to patterns of reduplication. Section 6 discusses word-bound nasal spreading. Section 7 concludes.

2 BACKGROUND

Paraguayan Guaraní (150 639-3: gug) is a Tupian language of the Tupí–Guaraní branch, which is the most widely distributed branch of the family.

Paraguayan Guaraní is an official language of Paraguay (in addition to Spanish) and one of the most widely spoken American languages. This makes PG unique, as otherwise the Americas saw a strong shift towards colonial languages (English, Spanish, Portuguese).

The PG syllable structure can be schematized as $(C)(\c V)V(\c V)$. The language is highly agglutinative, with many different grammatical categories expressed as prefixes, suffixes, and clitics within the verbal complex (1). Throughout this handout, primary stress is represented with the acute accent. Secondary stress is represented with the grave accent.

(1) A MORPHOLOGICALLY COMPLEX VERB

a-guatà -pà -reì -gua'ú -ta -ma -ramo

A1SG-walk -tot -frst -fret -fut -alr -if

"If I pretend that I will have already finished walking in vain, ..."

(gug_20210401_ixo_mmd)

Prefixes express agreement categories and valence-changing operations, while suffixes express other inflectional and derivational categories.

Estigarribia (2020) provides a recent descriptive grammar of the language. There is little previous scholarship on Paraguayan Guaraní stress and prosody. Gregores and Suárez (1967) provide the most extensive description of the language's prosodic system, which supports parts of the analysis we present today.

All the data was collected by the authors with two native speakers from Paraguay and has been deposited in the California Language Archive (CLA) as Gómez et al. (n.d.).

3 STRESS AND SUFFIX ORDER

First, we provide the most basic facts related to wordhood and stress in PG. Stress predominantly falls on the last syllable of a morphologically simple word (2).²

(2)	a. guatá	walk	(gug_20210401_ixo_mmd)
	b. <i>mbarakajá</i>	cat	(gug_mcg_20200923_ejg)
	c. mõrõtî	white	(gug_20210401_ixo_mmd)
	d. <i>mbohapý</i>	three	(gug_20210401_ixo_mmd)
	e. va'ekué	long ago	(gug_20210401_ixo_mmd)
	f. <i>-riré</i>	-AFTER	(gug_20210401_ixo_mmd)

Phonetically, stress correlates most robustly with pitch, duration, and intensity. Generally, pitch is a more reliable correlate of phrase-final stress, whereas duration is a more reliable correlate of stress occurring earlier in a phonological phrase.

Prefixes do not affect stress. As such, stress is insensitive to the value of agreement (3a), valence (3b), and possession (3c), which are all expressed prefixally. This is to say, regardless of the prefix, stress remains final.

```
(3) a. a- guatá
A1SG- Walk

"I walk" (gug_20210401_ixo_mmd)

b. mbo- guatá
CAUS- Walk

"make walk" (gug_20210401_ixo_mmd)
```

¹ The following glossing abbreviations have been used: 1 = first person, 2 = second person, 3 = third person, A = set-A, After = after, AgD = agent-demoting voice, Almost = almost, Alr = already, B = set-B, Caus = causative, dare = dare, desiderative, excl = exclusive (only), fce = forceful imperative, frst = frustrative, fut = future, if = conditional, imp = imperative, incl = inclusive, ingr = ingressive, ints = intensifier, more = more, neg = negative, pl = plural, pld = pleading, pot = potential, pret = pretensive, priv = privative, Q =

question particle, RCPR = reciprocal, REC = recent past, RED = reduplicant, REQ = requestative, SG = singular, TOT = totalitative, SG = singular, SG = singular

² Although there are lexically specified exceptions, e.g. óga 'house,' ātī́ā 'sneeze,' -kuéra '-pl.'

There are two classes of suffixes. The first class is the stressed suffixes. If one of these stressed suffixes attaches, primary stress shifts onto the last syllable of the suffix (4). Previous stress, including that of the stem, may be preserved as secondary stress. In fast speech, the secondary-stressed suffixes may become destressed to avoid stress clash. (For further discussion of secondary stress and destressing, see Section A.1.)

Most stressed suffixes originate from historically independent words (further discussed in Section A.2).

When several stressed suffixes attach at once, the primary stress falls on the last syllable of the last stressed suffix (5).

The other class consists of stressless suffixes. When a stressless suffix attaches, stress remains on the last syllable of the verb (6).

```
c. a- guatá-ne
A1SG- Walk -DARE

"I dare walk" (gug 20210401 ixo mmd)
```

When several stressless suffixes attach, stress likewise remains on the last syllable of the verb and the stressless suffixes form a stressless string (7).

Now, interestingly, there is considerable freedom with respect to ordering among the stressed suffixes (8-10). The different orders do not reflect scopal differences. We discuss this further in Section A.3.

(8)	a.	a- guatà -mo'à -vé A1SG- Walk -ALMOST -MORE	b.	a- guatà -vè -mo'ấ A1sG- walk -more -almost	
	"I planned to continue walking"		(gug_ixo_20201203_mmd)		
/ \		43 43 4	- 1		

Finally, although there is ordering freedom within the domain of stressed suffixes, the stressed suffixes always precede the stressless ones (11-13).

(11) a. e- guatà -mí -na

IMP- walk -PLD -REO

"I will probably walk"

"please walk"	(gug_20210405_mcg_mmd)
(12) a. a- guatà-pá-ma A1SG- Walk-TOT-ALR	b. *a- guatà -ma -pá A1sG- walk -ALR -TOT
"I finished walking"	(gug_20210405_mcg_mmd)
(13) a. a- guatà-potá-ne	b. *a- guatà -ne -potá A1SG- walk -pot -ingr

b. *e- guatà -na -mí

(gug 20210405 mcg mmd)

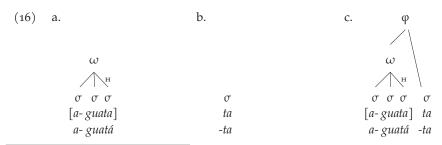
This generalizes such that in morphologically complex forms, the stressed suffixes, such as the totalitative $-p\acute{a}$ 'Tot,' frustrative $-re\acute{\iota}$ 'Frst,' and pretensive $-gua'\acute{u}$ 'Pret,' precede stressless suffixes, such as the future -ta 'Fut,' already -ma 'ALR,' and conditional -ramo 'IF.' Primary stress falls on the last syllable of the last stressed suffix (14).

4 ANALYSIS: STRESSED SUFFIXES AS PROSODIC WORDS

Now, we move on to the analysis. We posit that stressed suffixes are separate prosodic words, and stressless suffixes aren't.

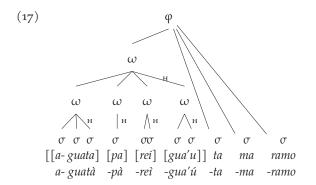
We also propose that prosodic constituents are right-headed. Thus, a verb receives final stress because its rightmost syllable is the prosodic head of the word (15a). Stressed suffixes, such as the desiderative $-s\acute{e}$ 'DES,' are also prosodified (15b). The two together form a non-minimal prosodic word which is headed, again, by the rightmost constituent (15c).³ Prosodic constituency is represented with brackets []. Headedness is represented with a small cap H.

Now, we turn to the stressless suffixes. Stressless suffixes, such as the future -ta 'fut,' are not prosodified. Non-prosodified suffixes are represented without brackets. They are stray-adjoined and not dominated by any prosodic word node. Instead, they are immediately dominated by a phonological phrase (16).



³ We are assuming that morphologically complex verbs have recursive prosodic structure. For a motivation of recursive prosodic structure, see Ito and Mester (2009, 2012).

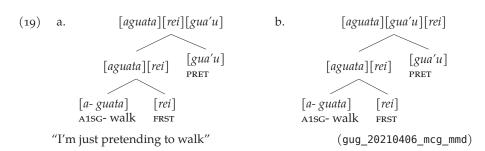
In morphologically complex forms with both prosodified and non-prosodified suffixes, primary stress falls on the last syllable of the last prosodified suffix (17).



Now, recall that the stressed suffixes have (partially) free ordering. We propose that all suffixes subcategorize for a prosodic word to their left. We formulate the subcategorization requirement as a constraint (18) couched within Optimality Theory (McCarthy and Prince, 1986; Prince and Smolensky, 1993).

(18) SubCategorization, or: SubCat Suffixes attach to the right edge of a prosodic word: suffix: []_{\omega} __.

This subcategorization requirement derives the free ordering of PG suffixes. For example, consider a verb with two prosodified suffixes (19). Assume that the verb [a-guata] 'Alsowalk' first combines with one suffix [rei] 'Frst.' The latter suffix [gua'u] 'Pret' may then, in accordance with its subcategorization frame, attach to [rei] 'Frst' (19a). It may, however, also infix by attaching to [a-guata] 'Also-walk' (19b). Thus, variable affix order obtains. This is an adaptation of Bickel et al.'s (2007) analysis of variable prefix ordering in Chintang (Kiranti, 150 639-3: ctn).



Below the analysis of (19) is represented as an Optimality Theoretic tableau. Either suffix order satisfies SubCategorization, which means that both candidates are optimal (20), i. e. both are grammatical.

⁴ If the attachment of [gua'u] 'precides the attachment of [rei] 'frst,' the same reasoning applies; variable affix order order results in either case.

(20)	[a- guata], [gua'u], [rei] :	SubCat
	[aguata][gua'u][rei] [aguata][rei][gua'u]	

"I'm just pretending to walk" (gug_20210406_mcg_mmd)

Finally, we propose that prosodic well-formedness is responsible for the fact that prosodified suffixes precede the non-prosodified ones. We formalize the proposal with a version of the Exhaustivity constraint (21), which belongs to the family of Prosodic Domination constraints (Selkirk, 1996).

(21) Exhaustivity(ω_{nonmin} , ω), or: Exhaust No non-minimal prosodic word immediately dominates a syllable.

We assume that a non-minimal prosodic word dominates the stem and all the prosodified suffixes. The Exhaustivity constraint ensures that the recursive word immediately dominates only minimal prosodic words by penalizing each non-prosodified suffix within it (22).⁵

(22)	[a-guata], [pa], ta, ma A1SG- walk finish fut Alr	Exhaust
[≇ i.	[[aguata][pa]]tama	
ii.	[[aguata]ta[pa]]ma	*ta
iii.	[[aguata]tama[pa]]	*ta, *ma

"I've almost finished walking" (gug_20210405_mcg_mmd)

So, in an interim summary, we have proposed that in Paraguayan Guaraní, stressed suffixes are prosodified as separate words and that suffix order results from demands on prosodic well-formedness.

5 EXTENDING THE ANALYSIS: REDUPLICATION

Now, we discuss the morphological and phonological behaviors of PG reduplication. The PG reduplicant copies two syllables from the right edge of a prosodic word (23), contributing a continuative, distributive, or intensive meaning, depending on the semantics of the root. When stress-bearing suffixes, such as the totalitative $-p\acute{a}/-mb\acute{a}$ 'ror' or intensifier $-it\acute{e}$ 'Ints' are present, the reduplicant may contain syllables from those suffixes, with no change in meaning (23b-d).

- (23) THE REDUPLICANT MAY INCLUDE MATERIAL FROM THE ROOT AND STRESSED SUFFIXES
 - a. $\~o$ -mỹãnằ-mbà-ité ij-aó cája riepýpe
 A3-push-tot-ints B3-clothes box inside
 "S/he pushed all of her/his clothes into the box." (gug_20210406_mcg_krr)
 - b. *ō-mỹãnà-mỹãnà-mbà-ité ij-aó* cája riepýpe
 A3-push-<u>RED</u>-TOT-INTS B3-clothes box inside
 "She keeps pushing all of her clothes into the box."(gug_20210406_mcg_krr)
 - c. õ-mỹãnằ-mbà-<u>ñambà</u>-ité ij-aó cája riepýpe
 A3-push-tot-<u>RED</u>-INTS B3-clothes box inside
 "She keeps pushing all of her clothes into the box."(gug_20210406_mcg_krr)
 - d. *ỗ-mỹãnà-mbà-itè-<u>mbaité</u> ij-aó cája riepýpe*A3-push-tot-ints-<u>red</u> B3-clothes box inside
 "She keeps pushing all of her clothes into the box."(gug 20210406 mcg krr)

Suffixes outside of the stressed domain, like the already -ma 'ALR' and question -pa 'Q,' however, cannot form part of the reduplicant (24c-d).

- (24) The reduplicant may not include material from stressless suffixes
 - a. re-karú-ma-pa
 A2SG-eat-ALR-Q
 "Have you eaten already?" (gug_20210406_mcg_krr)
 - b. re-karù-<u>karú-ma-pa</u>
 A2SG-eat-<u>RED-ALR-Q</u>
 "Have you eaten a little something already?" (gug_20210406_mcg_krr)
 - c. *re-karù-ma-rúma-pa
 A2SG-eat-ALR-RED-Q
 int.: "Have you eaten a little something already?"(gug_20210406_mcg_krr)
 - d. *re-karú-ma-pa-mapa

 A2SG-eat-ALR-Q-RED

 int.: "Have you eaten a little something already?"(gug_20210406_mcg_krr)

We propose that, in essence, the reduplicant is just a regular stressed suffix—it's just that it happens not to have any underlying segments attached to it; it's just a prosodic template consisting of two syllables. (The shape of the reduplicant may be implemented e. g. with Inkelas and Zoll's (2005) total copying with a bisyllabic constraint on the reduplicant copy, or Zimmermann's (2021) filling of empty metrical structure).

The attested variability in the reduplicant position is phonologically conditioned: The free ordering of PG stressed suffixes (Section 3) means that the reduplicant may attach to the right edge of *any* prosodic word (23b-d), regardless of whether it includes material from the root (with prefixes), root with stressed suffixes, or just stressed suffixes.

Like other stressed suffixes in the language, the reduplicant can be reordered with respect to other stressed suffixes without change in meaning; as a stressed suffix, it always precedes stressless suffixes, and no reordering is allowed between stressed and stressless suffixes.

⁵ Non-prosodified suffixes are not dominated by phonological words, but rather immediately dominated by phonological phrases. We assume that another Exhaustivity constraint which penalizes phonological phrases immediately dominating stray syllables ranks low, showing no activity in the language (i).

⁽i) EXHAUSTIVITY (ϕ, ω) No phonological phrase immediately dominates a syllable.

Thus, the behavior of the reduplication is explained be referring to the prosodic word—the reduplicant is a prosodic word, and it attaches to any prosodic word within the verb.

6 NASAL SPREADING (COMES FOR FREE)

Finally, we discuss PG nasal spreading, as the observed patterns of nasality follow straightforwardly from the analysis proposed in Section 4.

Specifically, nasality spreads leftwards from a phonemic nasal vowel, resulting in nasalization of the material to the left within the prosodic word (25). Triggers of nasalization are underlined. Nasal segments are in shown in **boldface**.

(25) Nasal vowel triggering leftward nasalization

a. *ja-jo-haihú*A1PL.INCL-RCPR-love

"We love each other."

(gug_20201104_mcg_pk)

b. ñã-ñõ-ãñũấ

A1PL.INCL-RCPR-CAUS-hug

"We hug each other."

(gug 20201117 mcg pk)

A phonemic nasal consonant, underlined, additionally triggers the nasalization of all segments to its left within the word (26).

(26) Nasal stop triggering leftward nasalization nã-hẽ<u>n</u>dú-i neg-a1sg-hear-neg

"I didn't listen." (gug_20210223_ixo_krr)

Voiceless obstruents are transparent to nasal harmony, while all other segments in the inventory show the effects of nasalization (27). There are no consonants which block the spread of nasality.

(27) Voiceless obstruents transparent to nasal harmony $\tilde{o}\text{-}\tilde{n}\tilde{e}\text{-}k\tilde{y}t\tilde{\underline{i}}$ A3-AGD-Cut "He cut himself." (qug 20201021 mcg pk)

As suffixes form their own prosodic words, a suffix itself can be the domain of nasal spreading, but nasality does not spread across a prosodic word boundary from a suffix to a root (28). Prosodic words are bracketed [].

(28) Nasal spreading blocked across stem-suffix boundary

a. $[a-vy'\hat{a}][-m\tilde{o}'\frac{\tilde{a}}{\tilde{a}}]$ A1SG-happy-FRST "I was almost happy." (gug_20201008_mcg_krr) b. $[vy'\hat{a}][-'\hat{y}]$ happy-priv "sadness" (gug 20201001 mcg krr)

Noun incorporation occurs in PG. A prosodic word always includes maximally one root: in a word with an incorporated noun and a verb, there are two prosodic words, and therefore two domains of nasal spreading. The noun and prefixes comprise one domain (29a), while the verb comprises a second domain (29b). Again, nasal spreading does not cross the prosodic word boundary.

(29) Nasal spreading blocked across noun-verb boundary

a. $\left[\tilde{a}-\tilde{n}-\tilde{a}k\underline{\hat{a}}\right]\left[-ky'\delta\right]$ A1-AGD-head-wash "I washed my hair." (gug 20210406 mcg krr)

b. $[\tilde{a}$ -mbo- $ryguasù][-k\tilde{a}'\frac{\acute{e}}{\acute{e}}]$ A1-CAUS-chicken-grill
"I am grilling chicken."

(gug 20210503 mcg krr)

7 DISCUSSION AND CONCLUSIONS

In conclusion, we have presented an account of three phenomena in Paraguayan Guaraní: suffix order, reduplication, and nasal spreading.

First, stressed suffixes are ordered freely with respect to each other, and precede all the stressless suffixes. We propose that the freedom of ordering is due to the suffixes' subcategorization frames, and that stressless suffixes are "pushed out of" the larger prosodic word by Exhaustivity.

Second, a reduplicant may appear anywhere within the larger prosodic word, but not past the boundary marked by stressless stray-adjoined suffixes. These distributional properties can be accounted for by observing that the reduplicant behaves like a regular stressed suffix (i. e. prosodic word).

And third, nasality spreads leftward from stems onto prefixes but not from suffixes onto stems, and not between the verb and the noun in noun incorporation. This again can be understood by invoking prosodic wordhood: In PG, nasality spreads leftward within a prosodic word, but does not cross word boundaries.

All three phenomena narrow in on the word as the relevant prosodic constituent, testifying to its importance in the grammar of Paraguayan Guaraní.

Finally, we bring attention to the fact that prosodic wordhood is relevant to PG suffix order, showing that morphological structure may be determined by phonological considerations (as consistent with e.g. McCarthy and Prince, 1993a,b).

BIBLIOGRAPHY

Barbosa, Antônio Lemos (1951). *Pequeno vocabulário tupi-português*. Rio de Janeiro: Livraria São José.

- Bickel, Balthasar, Goma Banjade, Martin Gaenszle, Elena Lieven, Netra Prasad Paudyal, Ichchha Purna Rai, Manoj Rai, Novel Kishore Rai, and Sabine Stoll (2007). "Free prefix ordering in Chintang." In: *Language*, pp. 43–73.
- Estigarribia, Bruno (2020). *A grammar of Paraguayan Guarani*. Grammars of World and Minority Languages. London: UCL Press.
- Gómez, María, Irma Easty Ovelar, Madeline Bossi, Maksymilian Dąbkowski, Emily Drummond, Emily Grabowski, Rebecca Jarvis, Phuong Khuu, Lev Michael, and Katherine Russell (n.d.). "Berkeley Field Methods: Paraguayan Guaraní." 2020–09. California Language Archive, Survey of California and Other Indian Languages. University of California, Berkeley. DOI: 10.7297/X2PR7TNF.
- Gregores, Emma and Jorge A. Suárez (1967). *A description of colloquial Guaraní*. The Hague: Walter de Gruyter GmbH & Co KG.
- Inkelas, Sharon and Cheryl Zoll (2005). *Reduplication: Doubling in Morphology*. Cambridge Studies in Linguistics 106. Cambridge University Press.
- Ito, Junko and Armin Mester (2009). "The extended prosodic word." In: *Phonological Domains: Universals and Deviations* 135, p. 194.
- Ito, Junko and Armin Mester (2012). "Recursive prosodic phrasing in Japanese." In: *Prosody Matters: Essays in Honor of Elisabeth Selkirk*. Equinox London, pp. 280–303.
- Jensen, Cheryl (1998). "Comparative Tupí-Guaraní morphosyntax." In: *Handbook of Amazonian Languages*. Vol. 4. Mouton de Gruyter Berlin, pp. 489–618.
- McCarthy, John J. and Alan Prince (1986). "Prosodic morphology." In: Linguistics Department Faculty Publication Series 13. URL: https://scholarworks.umass.edu/linguist_faculty pubs/13.
- McCarthy, John J. and Alan Prince (1993a). "Generalized alignment." In: Yearbook of Morphology. 12. Springer. URL: https://scholarworks.umass.edu/linguist_facult y_pubs/12.
- McCarthy, John J. and Alan Prince (1993b). "Prosodic morphology: Constraint interaction and satisfaction." In: ROA-482. Technical Report #3 of the Rutgers University Center for Cognitive Science.
- Mello, Antônio Augusto Souza (2000). "Estudo histórico da família linguística tupíguaraní: Aspectos fonológicos e lexicais." PhD thesis. Florianópolis, SC: Universidade Federal de Santa Catarina.
- Nascimento, Ana Paula Lion Mamede (2008). "Estudo fonético e fonológico da língua Guajá." Master's thesis. Brasília, Brazil: Universidade de Brasília.
- Prince, Alan and Paul Smolensky (1993). "Optimality Theory: Constraint interaction in Generative Grammar." In: *Rutgers Optimality Archive*. ROA-537, ROA Version, 8/2002. URL: https://roa.rutgers.edu/article/view/547.
- Selkirk, Elisabeth (1996). "The prosodic structure of function words." In: *Signal to syntax: Bootstrapping from speech to grammar in early acquisition*. Ed. by J. L. Morgan and K. Demuth. Lawrence Erlbaum Associates, Inc., pp. 187–213.
- Zimmermann, Eva (2021). "Faded copies: Reduplication as distribution of activity." In: *Glossa: A Journal of General Linguistics* 6.1 (58), pp. 1–38. DOI: 10.5334/gjgl.1117. URL: https://doi.org/10.5334/gjgl.1117.

A APPENDIX

A.1 Secondary stress

The observation that non-final stresses in morphologically complex words are preserved receives support from previous literature. Gregores and Suárez (1967, p. 106) also claim that stems with stressed suffixes retain secondary stress. Nascimento (2008, p. 59) makes the same claim about a related language Guajá.

The mechanism of optional destressing applies across word boundaries in phonological phrases as well. For example, nouns with final stress may (30a) but need not (30b) undergo destressing when followed by a postposition with initial stress. Thus, the destressing seen in (15c) is a general operation which may affect morphologically complex verbs as well as multi-word phonological phrases.

A.2 Diachronic support

The analysis of some suffixes as prosodified receives support from the fact that some of them are cognates with or Proto-Tupí-Guaraní (henceforth PTG) reflexes of fully independent words (31-32). B51 stands for Barbosa (1951), J98—for Jensen (1998), and Moo—for Mello (2000).

(31) Cognates

asé 'des'	seia 'want' in Tupinambá (B51, p. 144) ⁶
bvé 'more'	$b\acute{e}$ 'more' in Tupinambá (B51, p. 40) 6
c. $-mo'\tilde{a}$ 'almost'	moanga 'pretend' in Tupinambá (B51, p. 90) 6
d. <i>-reí</i> 'frst'	rei 'ғrsт' in Kaiwá (J98, p. 539) ⁶
emí 'pld'	$mi\tilde{a}$ 'lady.voc (vocative)' in Tupinambá (B51, p. 88) ⁶

(32) Reflexes

a.	-ра́ 'тот'	† $pa\beta$ 'finish' in PTG (J98, p. 143; M00, p. 185) 6
b.	-potá 'ingr'	† <i>potar</i> 'want' in PTG (J98, p. 518–519, ⁶ Moo, p. 190)
c.	-ramó 'rec'	† <i>ramo</i> 'now' in PTG (Moo, p. 194) ⁶

However, some fully independent PTG words have stressless reflexes in PG (33).

(33) Reflexes

a. -jave 'while' † jaße 'same' in PTG (Moo, p. 164)⁶

⁶ The cited work does not relate the independent word to the Paraguayan Guaraní suffix.

A.3 Free affix order

The different orders of stressed suffixes do not reflect scopal differences. Indeed, scope does not appear to play any role whatsoever in the interpretation of morphologically complex forms. For suffix permutations as in the examples above, the translations given for both orders are often identical or the two forms are identified as having "the same meaning."

When they are not, consultants often point to slightly different shades of the same meaning, which nevertheless do not point to changes in scope (34).

```
(34) a. o- ñe'è -reì -sé
A3- speak -FRST -DES
"he wanted to slander" (gug_20210318_ixo_mmd)
b. o- ñe'è -sè -reí
A3- speak -DES -FRST
"he wanted to talk for no reason," "he wanted to criticize"
(gug_20210318_ixo_mmd)
```

The translation offered for (34a) reflects the fact that $\tilde{n}e'\hat{e}$ -reí 'talk-frst' has the conventionalized meaning of "slander." The conventionalized meaning is less available in (34b) as $\tilde{n}e'\hat{e}$ 'talk' is separated from -reí 'frst' by -sé 'des,' but -sé 'des' still takes the widest scope.

The lack of relevance of semantic scope to linear order can be verified by carefully controlling for scenario. In (35), a scenario is given in which $-gua'\hat{u}$ 'pret' takes scope over $-s\acute{e}$ 'des.' In (36), the scope reverses. In either scenario, either order of suffixes is possible, further testifying to the fact that semantic scope does not play a role in the ordering of suffixes.

(35) SCENARIO: You took your friend on a walk. He is not enthusiastic, but he does not want to offend you, so he feigns his excitement.

```
a. o- guatà -sè -gua'ú b. o- guatà -gua'ù -sé
A3- walk -DES -PRET A3- walk -PRET -DES
"he pretends to want to walk" (gug_20210330_ixo_mmd)
```

(36) SCENARIO: There is a pretending contest. The participants choose the activity they pretend to do, and the more difficult the activity is to pretend, the more highly rewarded it is. It is most difficult to pretend to walk without actually walking, but if you succeed, you will get a lot of points.

```
a. a- guatà -sè -gua'ú b. a- guatà -gua'ù -sé
A1SG- Walk -DES -PRET A1SG- Walk -PRET -DES

"I want to pretend to walk" (gug_20210330_ixo_mmd)
```

Furthermore, there is some freedom with respect to the reordering of stressless suffixes (37-39).

- (37) a. *a- guatá -ma -nte*A1SG- walk -ALR -EXCL
 "I only walk"
- (38) a. e- guatá-nte -rire IMP- walk -EXCL -IF "if I keep walking"
- (39) a. e- guatá-ta -ke

 IMP- walk -FUT -FCE

 "you need to walk for sure"
- b. a- guatá-nte -ma
 A1SG- Walk -EXCL -ALR
 (gug_20210406_mcg_mmd)
- b. e- guatá -rire -nte

 IMP- walk -IF -EXCL

 (gug_20210412_mcg_mmd)
- b. ?? e- guatá -ke -ta IMP- walk -FCE -FUT (gug_20210412_mcg_mmd)