



# Stress Patterns of Quichua Nouns

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*The South American language Quichua has received relatively little documentation and analysis. The author investigates whether Quichua nouns follow the prevalent penultimate-stress rule. Interviews are conducted with native speakers: they tell personal stories and repeat aloud sentences read by the interviewer, correcting stress where necessary. The author identifies a number of morphemes as enclitics because they do not affect stress. It is concluded that penultimate stress holds for Quichua nouns except for proper names and with certain suffixes.*

# Introduction

The purpose of this study was to establish the stress patterns that govern the pronunciation of Pastaza Quichua nouns in Amazonian Ecuador. Specifically, in what cases does primary perceived stress fall on a syllable that is not penultimate and why? Previous research has found that a penultimate stress pattern is common for languages similar to Quichua. For this reason, my article begins with the null hypothesis that words follow a penultimate stress rule. The aim of my research was to attempt to find exceptions to this default rule.

An understanding of Quichua's stress patterns will contribute to work about indigenous languages, language learning, and language contact. Susan E. Kult notes the lack of language-learning resources for the language in her overview of Quichua second-language acquisition. A complete grammar of Quichua has yet to be published. Therefore, my work toward a systematic description of the stress of Quichua will assist with the language's documentation and preservation.

A more in-depth look at stress may identify areas of language contact influence from Spanish. Even those who are only concerned with the majority language of the area—Spanish—should consider this contact to be significant. Spanish not only influences Quichua, but Quichua influences Spanish as well. The stress patterns discovered in Quichua may lead to similar discoveries in the Andean dialect of Spanish because of its geographical proximity to Quichua speakers.

Conclusions drawn from a phonetic study of Quichua may eventually provide insight for ongoing semantic/pragmatic investigations. For example, the results concerning the locative *-i/-bi* suffix may connect to the ongoing study of the role of locatives in various dialects. Hintz also writes that studies of stress can contribute to linguistic study as a whole, maintaining that her research on stress in Peruvian Quechua “will aid typologists and others, as they work to confirm or disconfirm hypotheses about stress in other languages of the Americas” (Hintz 479). This article is intended to present a descriptive analysis

of the data; an acoustic analysis should be performed in the future in order to solidify these results.

## Methods

The consultants for the study were adult Pastaza Quichua-speaking women. All consultants were bilingual in Quichua and Spanish, and the research was conducted at the Andes and Amazon Field School. Both discourse and elicited data were recorded, based on the findings of Hintz, who wrote in her study that “consideration of both natural discourse data and elicited data proves to be essential in obtaining an accurate picture of the stress system.” Discourse data was recorded during question-and-answer conversation sessions, which included other students and professors. During this conversation practice, consultants would often launch into lengthy stories that provided ample data for the project. For the elicited data, a list of five to ten sentences was prepared for each suffix that could attach to nouns. I read each sentence out loud and prompted the consultant to correct or repeat me. This paper is based on my own perceptions of stress placement; because of this, all references to stress below indicate perceived primary stress.

## Results and Analysis

The following is a presentation of my preliminary hypotheses about the stress patterns for each suffix based on my recorded data, organized by suffix. After summarizing my interpretation of what I heard from the native speakers, I give examples from the speech of the consultants and my own translations, broken into parts. For this preliminary analysis, I have disregarded the differences between words in various clause positions, basing my conclusions mostly on words in isolation. The meanings of the abbreviations used are given in the appendix; perceived primary stress is indicated with an accent mark (e.g., á, í, ú)

in the transcription of the word and with **bolding** in the morphological breakdown of the word.

## Nouns in general

Every noun heard had penultimate stress except in cases of emphasis or expressive lengthening. This held true for all nouns whether it ended in a vowel or a consonant, shown here in examples spoken by Delicia:

*yáku*      *ushúshi*      *káchun*      *amárun*

water      daughter      sister-in-law      anaconda

I was unable to find any nouns that ended in consonants other than *n*. Both Louisa and Elodia also pronounced these n-final nouns with penultimate stress. These examples, in addition to others, show that this penultimate stress rule holds true for all nouns regardless of the number of syllables or final sounds.

## Plural suffix -guna

The suffix *-guna* is attached to nouns in order to form the plural. With almost no exception, words ending in *-guna* will have primary stress on the penultimate syllable. In other words, the first syllable of the suffix *-guna* is emphasized: *-gúna*. This principle is evident in each of the following examples:

<i>kangúna</i>	<i>wawagúna</i>
kan- <b>guna</b>	wawa- <b>guna</b>
you-PLU	child-PLU

The first example has the plural suffix attached to a two-syllable word, while in the second it is attached to a single-syllable word. Clearly, the

stress pattern maintains the penultimate stress rule for words with one syllable and words with multiple syllables.

### Locative suffixes -y and -bi

The suffixes -y and -bi are used to signify location within a noun and are generally translated as *in the*. (Further research must be conducted to determine in which cases -y and -bi are favored over one another, but for the purposes of this study, the two are considered equal.) Native speakers indicated that when the locative -y is employed, stress falls on the final syllable. This would create an exception to the penultimate stress rule. The following examples from the data, spoken by Louisa, demonstrate the final stress for the locative -y:

*ruyáy*

*ukúy*

ruya-**y**

uku-**y**

tree-LOC

hole-LOC

However, when -ibi is used, stress rests on the penultimate syllable of the word. This was noted in the speech of multiple consultants:

*yakúybi*

*wasíbi*

yak**u**y-bi

was**i**-bi

water-LOC

house-LOC

### Direct object marker suffix -ta

One of the most commonly used suffixes, -ta, affects word stress such that the penultimate stress rule is obeyed. Words suffixed with -ta as a direct object marker almost always carry penultimate stress.

*ashangáta*

*páyta*

*wawáta*

ashanga-ta

**pay**-ta

**wawa**-ta

basket-DO

he/she/it-DO

baby-DO

This also appears to be a rule without exception, regardless of the number of syllables.

## Possessive suffixes -wa and -ba

When making a one-syllable word possessive, the suffix *-ba* is used. The most common examples are the possessive pronouns meaning *your* and *his/her/its*, seen below.

*kánba*

*páyba*

**kan**-ba

**pay**-ba

you-POS

he/she/it-POS

In every case, these occurrences have penultimate stress. The suffix *-wa* is added when making a possessive using a base word with more than one syllable. This is demonstrated in such constructions as the second-person plural possessive and the third-person plural possessive seen below.

*paygúnawa*

*kangúnawa*

pay-**guna**-wa

kan-**guna**-wa

you-PLU-POSS

he/she/it-PLU-POSS

As shown above, I found that these instances favored an antepenultimate stress pattern rather than a penultimate stress rule. That is,

forming second- and third-person plural possessives makes stress fall on the second-to-last syllable, rather than the syllable preceding the -wa suffix as might be expected. This stress placement seems to suggest that the possessive -wa is less important to the determination of stress than -guna, the plural marker. I believe this may be because -guna, or the quality of being plural, is more intrinsic to the noun's quality than the fact that it is possessing something. While -wa indicates the overall relationship between two things, -guna presents more crucial information about the number of the topic. For this reason, stress is drawn to the penultimate syllable of -guna and is not affected by the less important -wa.

Stress is less predictable when creating a possessive using a proper name. In these cases, the proper name usually retains its original emphasis. For example:

*Abélwa*

*Ricárdowa*

**Abel**-wa

**Ricardo**-wa

Abel-POS

Ricardo-POS

The first example has primary stress on the same syllable that receives primary stress in the name itself, *Ricárdo*. This pattern is also manifest in the second example. The stress in the name *Abél* normally falls on the second syllable, and it is this same position that receives stress when it becomes possessive. There were few instances of this construction in the data, but it is heartening that these instances support my hypothesis that the possessive suffix is less important than other factors in influencing stress placement.

## Instrumental suffix -wan

The instrumental suffix (*-wan*), which can be roughly translated as *with*, maintains penultimate stress when attached to nouns. This is demonstrated in the following sentence, spoken by Delicia:

Ñuka *ayl'úwan tarabak mani*.

“I work with my family.”

(literally: I am a with-family worker.)

Normally, *áylu* (*family*) carries stress on its first syllable, but the addition of *-wan* makes the stress fall on the next syllable. As shown here, words suffixed with *-wan* have their stress moved back one syllable so that the word will follow the penultimate stress rule.

## Dative and ablative suffixes -ma and -manda

The dative *-ma*, meaning *toward*, and *-manda*, meaning *from*, have related functions, and both of these suffixes maintain the penultimate stress rule. The following examples show how nouns are affected when these suffixes are attached:

*sacháma*

*wasimánda*

**sacha**-ma

wasi-**manda**

forest-DAT

house-ABL

For both *-ma* and *-manda*, the stress falls on the penultimate syllable. For *-ma*, the penultimate syllable is generally the syllable just before the suffix; for *-manda*, the stress falls on the first syllable of the suffix.

## Topicalizing suffix -ga

Since -ga is an enclitic, I hypothesized that it would not affect stress like the other suffixes. In other words, I hypothesized that the attachment of -ga would not move the stress placement down to penultimate position but that the stress would remain in its initial position, creating antepenultimate stress. This is better illustrated with the examples from the data placed below:

*káynaga*

*mámaga*

**kayna**-ga

**mama**-ga

yesterday-TOP

mother-TOP

In each of these instances, the base word is made up of two syllables and has penultimate stress. Adding -ga does not move the stress to the second syllable; rather, the stress remains on the penultimate syllable of the base word, which results in antepenultimate stress for the entire construction.

When other suffixes are introduced, antepenultimate stress continues. In working with the native speakers, it became clear that -ga cannot attach naturally to any word; however, the instances elicited demonstrate that the enclitic -ga does not affect stress, as is evident in the following:

*aichátaga*

*sachámaga*

**aicha**-ta-ga

**sacha**-ma-ga

fish-DO-TOP

forest-DAT-TOP

In the first example, the base *aicháta* has penultimate stress (as ex-

plained above, *-ta* moves stress back one syllable to maintain penultimate stress). When *-ga* is added, stress is not affected but stays in its original position. The result is the same with the second instance.

## Assertive suffix *-mi*

As was the case for *-ga*, the assertive *-mi* cannot be attached to every instance of a noun, but the ones found in the data suggest that this enclitic also does not affect stress. The examples below provide evidence for this statement:

*wasimándami*                      *kuchagámami*

wasi-**man**da-mi                      kucha-**ga**ma-mi

house-ABL-AS                      lake-until-AS

In each of the examples above, the form without *-mi* carried penultimate stress. When *-mi* was added, the stress was not affected to maintain this penultimate stress for the construction as a whole. Rather, the stress remained in its original position, once again creating antepenultimate stress, as was the case for the enclitic *-ga*.

## Negative suffix *-chu*

The negative suffix *-chu* behaves similarly to its counterpart *-mi*, as seen below:

*aichátachu*                      *kuchagámachu*

aich-**a**ta-chu                      kucha-**ga**ma-chu

meat-DO-NEG                      lake-until-NEG

As with the previous enclitics *-ga* and *-mi*, the addition of *-chu* to the words *aichata* and *kuchagama* does not affect the stress.

## Evidential suffix *-shi*

Lastly, the final enclitic *-shi* continues the pattern that the others follow. The following examples uphold this hypothesis:

*wasimándashi*

*yakúyshi*

wasi-**man**da-shi

yaku-**y**-shi

house-ABL-EV

water-LOC-EV

The instances above demonstrate that only the original stress, not added enclitics, affect stress.

## Conclusion

In summary, most suffixes follow the general rule of penultimate stress for Quichua nouns. Some nouns, however, retain their original stress when paired with certain suffixes. These exceptions include locatives, enclitics, and certain possessives. The locative *-y* affects stress such that the emphasis is on the final syllable of a word, as in *yakúy* and *ruyáy*, rather than penultimate. This may be due to a language change from *-bi* to *-y*. It is possible that over time and under some circumstances, the *b* from *-bi* was dropped, leaving *-y*. This deletion makes the form lose its last syllable, leaving the stress in the same place as before. Further study about the role of the locative may strengthen or refute this argument.

I also found that the enclitics *-ga*, *-mi*, *-chu*, and *-shi* do not affect stress. This means that a form's initial stress, when combined with these suffixes, does not change to penultimate but stays the same as

before the addition. My interpretation of this phenomenon is that the enclitics are not as important to the meaning of the noun itself as other suffixes are. While the other suffixes can only be attached to nouns and give information about the case or number of the noun (for example, *-ta* and *-guna*), the enclitics can be attached to other grammatical forms (such as verbs) and give more general information about how the form relates to the message as a whole (as a topic, to assert or negate, or to express evidentiality.) For this reason, the enclitics do not affect the stress of a word like the other suffixes do.

The final exception is the formation of the plural possessive and possessives with proper names. The second- and third-person plural possessives (*kangúnawa* and *paygúnawa*, respectively) have antepenultimate stress. I believe this is so for the same reason as the enclitics: the possessive suffix *-wa* is less important to the meaning of the word than *-guna*, and so the penultimate stress pattern for *-guna* holds and is not affected by the addition of *-wa*. Additionally, possessives formed from a proper name let the proper name retain its original stress pattern, as the name itself is much more important than the suffix.

Some of the challenges of the research included poor recording conditions, a limited knowledge of the language, and illiteracy. Reliable recordings were difficult to make because of constant rain and an often crowded environment in which people would talk over one another; however, the high quality equipment I used still seemed to work well. Not knowing much of the Quichua language was probably the most challenging obstacle, as it was difficult to create elicitation sentences without knowing what kinds of suffixes even existed. Furthermore, a very basic knowledge of the language made it difficult to explain the purpose of the study to the consultants and it was hard to give directions. A better command of Spanish may have helped in this regard. Finally, it may have been easier to obtain elicited data if the consultants had been able to read and write. With these skills, consultants could have been presented with lists of sentences to read, eliminating me as the middle man. While these difficulties should be avoided in the fu-

ture, satisfactory data was still acquired from which preliminary stress pattern conclusions can be drawn.

There were some limitations for the study. Expressive lengthening was ignored, since Nuckolls has noted stress fluctuation in circumstances of emphasis. An analysis of varying levels of stress was largely neglected, as perception is often only reliable when determining one tier of emphasis (primary stress). Acoustic analysis may reveal further levels of stress more accurately. Furthermore, this analysis does not take into account the differences between word positions in clauses. A more in-depth analysis of this data could determine those distinctions in the future.

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# Appendix

LOC—locative

NEG—negation

DO—direct object marker

EV—evidential

POS—possessive

TOP—topicalizing suffix

PLU—plural

DAT—dative

AS—assertive

ABL—ablative

