Variable Syllable Weight and Quantity-Insensitive Allomorphy in Shipibo

Shipibo, an Amazonian language of the Panoan family, shows an unusual allomorphy whose distribution crucially depends on metrical feet. Lauriault (1948) reports the existence of seven of those suffixes. For example, the suffix -\textit{riba} meaning ‘again’ has two surfacing forms that depend on the number of moras of the stem. It surfaces as -\textit{ribg} when added to a stem with an odd number of moras and as -\textit{ribi} when added to a stem with an even number of moras. See (1) to (3).

(1) \quad /\text{ka -}\text{riba -}ki / \rightarrow (\text{ka.-ri})(\text{ba.-}ki) \\
\quad go-again -past_tense  \\
\quad ‘Went again’ (Lauriault 1948)

(2) \quad /\text{yono -}\text{riba -}ki / \rightarrow (\text{yo.no})(\text{ri.bi})-ki \\
\quad command-again -past_tense  \\
\quad ‘Commanded again’ (Lauriault 1948)

(3) \quad /\text{yomtso -}\text{riba -}ki / \rightarrow (\text{yo.mi})(\text{ts.o.-ri})(\text{ba.-}ki) \\
\quad steal-again -past_tense  \\
\quad ‘Stole again’ (Lauriault 1948)

As suggested by the foot boundaries shown in (1) to (3), I analyze the allomorphy of this suffix as crucially depending on quantity-insensitive footing running through the Prosodic Word (PrWd). Thus, the form -\textit{riba} occurs when the suffix is split between two feet; otherwise, the form -\textit{ribi} occurs.

If footing were quantity-sensitive in Shipibo, we would incorrectly predict *(\text{mi}§)(\text{ti.ri})(\text{ba}.ki) as the surfacing form in (4), that is, with -\textit{riba} instead of -\textit{ribi}.

(4) \quad /\text{mi}§\text{ti -}\text{riba -}ki / \rightarrow (\text{mi}§\text{ti})(\text{-ri.bi})-ki \\
\quad Cut his hand -again -past_tense  \\
\quad ‘Cut his hand again’ (Lauriault 1948)

However, contrary to what is expected, Shipibo has a quantity-sensitive stress system in which closed syllables attract stress: main stress occurs on the second syllable if closed; otherwise, it occurs on the first one.

(5) \quad \text{Shipibo (Lauriault 1993)}  \\
\quad a. \quad (\text{ba.ki}) \quad ‘Child’ (p.102)  \\
\quad b. \quad (\text{wi.ta}) \quad ‘Leg’ (p.192)  \\
\quad c. \quad (\text{mis.ko}) \quad ‘Cramp’ (p.269)  \\
\quad d. \quad (\text{ton.ki}§) \quad ‘(Sp. of) bird’ (p.171)  \\
\quad e. \quad (\text{sa.pi})ton \quad ‘(Sp. of) fish’ (p.378)  \\
\quad f. \quad (\text{mis.pan}) \quad ‘Cook of food wrapped in leaves’

Thus, the conundrum posed by Shipibo comes in two parts: its peculiar quantity-sensitive stress and its relation with the quantity-insensitive \textit{Riba}-allomorphy. I solve straightforwardly both puzzles by positing quantity-insensitive footing and regarding the weight of closed syllables as positionally variable in Shipibo due to the effects of well-known metrical constraints. I show that FOOT-BINARITY, WEIGHT-TO-STRESS PRINCIPLE and GROUPING HARMONY *(HL), when ranked over WEIGHT-BY-POSITION in a language that allows closed syllables to be heavy (WBP >> Dep-\textit{µ}), render the weight of closed syllables contextually variable while respecting the quantity-insensitive footing.

\textit{Keywords}: Foot-based allomorphy, Stress, Variable syllable weight, Panoan languages.
• Variable CVC-Syllable Weight within Disyllabic Feet in Shipibo

\[
\begin{align*}
\text{CVC.CV} &\Rightarrow (L,L), \text{but not } *(H)L, \text{it violates FT-Bin-}\sigma \\
&\quad *(H,L), \text{it violates } *HL \\
&\quad *(HH), \text{it violates WSP} \\
\text{CV.CVC} &\Rightarrow (L,H) \\
\text{CVC.CVC} &\Rightarrow (L,H), \text{but not } *(H)L, \text{it violates FT-Bin-}\sigma \\
&\quad *(H,L), \text{it violates } *HL \\
&\quad *(H,H), \text{it violates WSP} \\
&\quad *(L,L), \text{it violates WBP twice}
\end{align*}
\]

• Constraint Definitions

(7) FOOT-BINARITY (FTBIN): Feet are disyllabic.

GROUPING HARMONY *(HL): Do not have a foot in which the size of the first syllable is greater than the size of the second. The syllable size is measured in moras.

WSP: If heavy, then stressed.

WBP: Coda consonants are moraic.

DEP-\(\mu\): Output moras have input correspondents.

References

Faust, N. (1973) Lecciones para el Aprendizaje del Idioma Shipibo-Conibo, Instituto Lingüístico de Verano, Documento de Trabajo 1, Perú.


