Highly complex syllable structure: a motivated and stable feature

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INTRODUCTION

Most models of syllable structure are designed to account for phonotactic patterns which are frequent within and across languages. The CV shape is privileged in phonological, physiological, and acoustic-perceptual accounts.[1][2][4]

Extreme deviations from the idealized CV type, as illustrated by the large onset in (1), present problems to abstract theoretical models:

(1) Cocopu[3]: ‘I hang up several things’

Background

Patterns such as (1) are known to come about through vowel reduction and deletion.

The presence of vowel reduction is often associated with complex syllable patterns or processes which simplify syllable structure in speech rhythm typologies.

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There are two kinds of epenthetic patterns which are characteristic of the languages of this group: processes which break up sequences of sounds which are identical or highly similar (e.g., sequences of siblants), and processes which break up sequences of two sonorants or a sonorant and obstruent.

2 of these languages have atypical HCSS patterns.

METHOD

Defining highly complex syllable structure (HCSS)

- word-marginal sequences of 3 obstruents or 4 Cs

  e.g., Talih[6]: ‘you came’

  Kuri[7]: ‘dressed’

Typological survey

- 24 languages with HCSS, representing 23 language families.

- 19 lgs. with ‘prototypical’ HCSS, 5 with ‘atypical’ HCSS patterns.

Data collection

Consulted language descriptions and recorded phonological processes affecting syllable structure: vowel reduction, phonological vowel epenthesis, and consonant deletion.

RESULTS

Vowel deletion processes yielding tautosyllabic clusters only in languages with prototypical HCSS patterns. Resulting clusters tend to include sequences of (voiceless) obstruents, which are characteristic of prototypical HCSS patterns.

OTHER OUTCOMES:

- Simple onset → simple coda ........... 6 languages
- Syllabic consonant ..................... 4 languages
- Entire syllable deleted ............... 1 language

All but one of these languages have prototypical HCSS patterns.

Processes examined here are productive, ongoing patterns which are conditioned by the phonological environment and are often described as variable or optional.

OUTCOME: canonical tautosyllabic cluster

(N = 9)

e.g., Qawasqar (Alacalufan, Chile)[5]

- canonical syllable structure: (C)(C)(C)CV(C)(C)

- /fə.ˈsə.nə/ > /fə.nə/ ‘speak-EXIST’

- cf. /fə.na/ ‘grow’

Vowel deletion processes yielding tautosyllabic clusters only in languages with prototypical HCSS patterns. Resulting clusters tend to include sequences of (voiceless) obstruents, which are characteristic of prototypical HCSS patterns.

OUTCOME: non-canonical tautosyllabic cluster

(N = 3)

e.g., Nuuchahnulth (Welshkan, Canada)[8]

- canonical syllable structure: CV(C)(C)(C)

- /tə.ˈhə.ʊ.ʃə.nə/ > /tə.ˈhə/ ‘he was drying his hands at the fire’

Processes examined here are productive, ongoing patterns which are conditioned by the phonological environment and are often described as variable or optional.

Consonant deletion

(N = 9)

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e.g., Wutung (Skou, Papua New Guinea)[10]

- /pəp/ > /p/ ‘squeezings’

- e.g., Tahuelhe (Chon, Argentinian)[11]

- /ə.ˈe.nə/ > [ən] ‘do’

Such processes typically affect sonorants or glottal consonants in clusters.

4 of the languages with such processes have atypical HCSS patterns.

REFERENCES


Georg, Stefan & Alexander P. Volodin. 1999. The phonetic processes responsible for prototypical HCSS.


