

# Prosodic Typology

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# Introduction

- Which phenomena are of interest / available for phonological typology?
- How is the term ‘prosodic’ defined?
- What characterizes the typological approach to the study of phonology/prosody?

# 1.1. Essentials of phonological description

- Descriptive grammars following the *Lingua Descriptive Studies Questionnaire* (Comrie & Smith 1977) discuss:
  - Phonological units (segmental)
  - Phonotactics
  - Suprasegmentals
  - Morphophonology ((supra-)segmental)

# 1.1. Essentials of phonological description

- Phonological units (segmental)
  - Repertoire of speech sounds (non-syllabics, syllabics, etc.)
  - Details of phonetic realization
  - Phoneme inventory and allophony

English *bit* vs. *pit*

German *k<sup>h</sup>aɛn* (no) vs. *klaɛn* (small)



# 1.1. Essentials of phonological description

- Phonotactics

- Word-initial or -final consonant (clusters)
- Word-initial or -final consonant (clusters)
- Syllabification of medial segments/clusters
- Canonical syllable type

Vietnamese  $C_1(w)V(C_2)$

$C_1$  = any consonant except for /p/

$C_2$  = /p, t, k, m, n, ŋ, y, w/

# 1.1. Essentials of phonological description

- Suprasegmentals

- Length

Japanese *i* ‘stomach’ vs. *ii* ‘is good’  
*ita* ‘existed’ vs. *itta* ‘went’

- Stress

English *Satan* [ˈseɪtən] vs. *satanic* [səˈtænik]

# 1.1. Essentials of phonological description

- Suprasegmentals

- Pitch




Mandarin     *yī* (high-level) ‘clothes’

vs.            *yí* (high-rising) ‘to suspect’

vs.            *yǐ* (falling-rising) ‘chair’

vs.            *yì* (high-falling) ‘meaning’

# 1.1. Essentials of phonological description

- Suprasegmentals
  - What is the major suprasegmental feature of West Greenlandic?
    - a. *Tukerumiak* ,cross beam, foot support' 
    - b. *Akuilisaq* ,short spray skirt' 
    - c. *Qasungasoq* ,aft deck line' 
  - H-L-H intonation contour spread over the last three morae of the utterance.

*aasa-kkut ippirna-qar-puq*  
summer-pros. insect-have-3sg.indic.  
'In the summer there are insects.'

# 1.1. Essentials of phonological description

- Morphophonology
  - Assimilation  
English *kæts*, *bɔɪz*
  - Dissimilation, Tariana  
/dí-pha=**khà**/ (3sgnf-fall=**away**)  
'he fell in the opposite direction'  
[dí-pa=**khà**] [dí-pha=**kà**] \*[dí-pha=**khà**]
  - Metathesis  
German *trennen* vs. Dutch *tornen*

# 1.1. Essentials of phonological description

- Morphophonology

- Deletion

Catalan      *voler* [buɫɛ] ‘to want’

vs.      *voler=ho* [buɫɛru] ‘to want it’

- Insertion

English *hɔːsɪz*

- Reduplication

Vietnamese *bó*̣*i-ró*̣*i* ‘be uneasy, troubled’

*khó*̣*c-ló*̣*c* ‘cry, whimper’

## 1.2. 'Prosodic' phonology

- Traditionally, prosody is used as an umbrella term for suprasegmental features, such as quantity, stress, tone, intonation.
- In this sense, prosodic phonology investigates the role of suprasegmentals in phonological systems.

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical distribution

- Tone: free, i.e. multiple tones may occur in the same word

- Fort Nelson Slave *sétthí* 'my hand'

- Stress: culminative, i.e. there can only be one primary stress per word

- English      *blackbird* ['blækbɜ:d]

- vs.      *black bird* ['blæk 'bɜ:d]

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical lexical domains

Tone: morpheme, i.e. tones are properties of morphemes

Slave *íd-* (1P subject) *na-* (customary aspect)

Stress: word, i.e. stress is a property of words

English *Satan* ['seɪtən] vs. *satanic* [sə'tænik]

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical function

- Tone: distinctive, i.e. enter into paradigmatic relationship

- Slave *jíh* (high) 'hook' vs. *jih* (low) 'mitts'

- Stress: demarcative, i.e. syntagmatic relationships

- Finnish [<sup>1</sup>vali<sub>1</sub>tuksis<sub>1</sub>tamme]

- (complain-D-pl-ela=1 plpos)

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical realization

- Tone: F0, i.e. pitch

- Stress: complex, i.e. pitch, duration, intensity

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical effect on phonology

Tone: self-contained, tones affect tones, not segments

Yoruba *ó kọ **mi*** 'he/she/it taught me' (cf. *mí*)

Stress: non-contained, can affect any aspect of segmental or tonal phonology

Nigerian Pidgin *A dè wok* [à **d**è wôk]

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)
  - Prototypical effect of phonology on it

Tone: affected by consonant types

Southern Kammu

klaan [kláan]

glaan [glàan]

Northern Kammu

kláan 'eagle'

klàan 'stone'

Stress: affected by syllable-weight

Udihe *mamasa 'la* 'old woman (LOC)'

*'a:ntaziga* 'women (PL)'

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## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)
  - Prototypical interaction with grammar
- Tone: tones of complex words determined compositionally
  - Vietnamese *bàn-ghế* 'furniture'
  - [*bàn* (low) 'table' + *ghế* (rising) 'chair']
- Stress: highly integrated into grammar
  - English *A* ↗*dri* ↘*ving* *instruc* ↗*tor*?!

## 1.2. 'Prosodic' phonology

- Tone vs. Stress (Hyman 2001)

- Prototypical rules types

- Tone: similar to segmental rules, e.g. tone dissimilation

- Yoruba *ó kọ **mi*** 'he/she/it taught me' (cf. *mí*)

- Stress: different from segmental rules, i.e. hierarchical

- Finnish [<sup>1</sup>vali<sub>1</sub>tuksis<sub>1</sub>tamme]

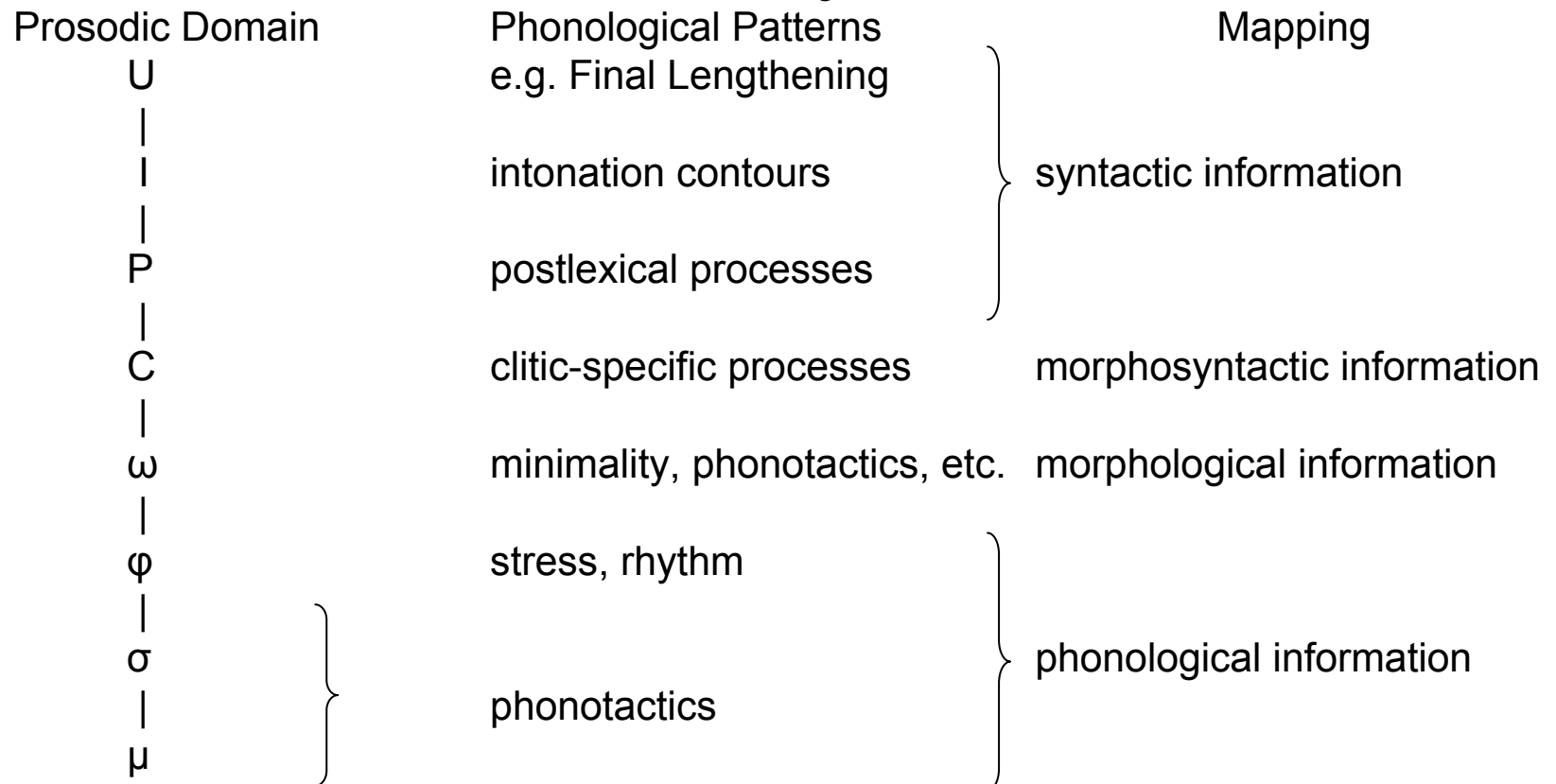
- (complain-D-pl-ela=1 plpos)

## 1.2. 'Prosodic' phonology

- More recently, Prosodic Phonology (Selkirk 1984 and Nespor & Vogel 1986) refers to a phonological theory which accounts for rule application domains.
- In this sense, prosody does not necessarily encompass suprasegmental features.

# 1.2. 'Prosodic' phonology

- The Prosodic Hierarchy



## 1.2. ‘Prosodic’ phonology

- [ʔ]-insertion in Limbu (van Driem 1987: 15)
  - a. /iŋghɔŋ/ [ʔiŋghɔŋ]  
‘message’
  - b. /ku-iŋghɔŋ/ [kuʔiŋghɔŋ]  
3POSS-message  
‘his news’
  - c. /a-i:r-ɛ/ [ʔaʔi:rɛ]  
1-wander-PST  
‘We (plural, inclusive) wandered.’



# 1.3. Phonology and language typology

- Traditionally, language typology (as well as linguistic theory) ask ‘what’s possible?’
- In other words, cross-linguistic comparison allows to explore the limits within which languages can differ.
- A simple example from phonology is the IPA, as an empirically founded, theoretic statement about which speech sounds are possible or attested in the languages of the world.



# 1.3. Phonology and language typology

- Based on what's possible, language typology aims at classifying languages based on their structural properties:
  - SOV-language
  - Ergative language
  - Tone language
- Ideally such a classification allows one additionally to state implications, such that the primary structural feature correlates with others:
  - SOV → Postpositions (?)
  - Ergative → S/P pivot (?)
  - Tone → simple syllable structure (?)

# 1.3. Phonology and language typology

- More recently, typology has turned to addressing questions like “what’s where and why?” (Bickel 2007)
  - “what” is about which structural properties can be studied as typological variable (qualitative typology)
  - “where” acknowledges the fact, the typological distributions (quantitative typology) are sensitive to genealogical areas
  - “why” in linguistics can be answered with appeal to the diachronic developments which underlie typological distributions or with appeal to interrelated distributions (genes, populations)