

**CHALIMBANA UNIVERSITY**

**DIRECTORATE OF DISTANCE EDUCATION**

**LBL 3101: THE PHONOLOGY AND MORPHOLOGY OF SELECTED BANTU LANGUAGES**

**SECOND EDITION 2023**

**Author**: **Sikota Edith-Habwanda Chalimbana University**

**School of Humanities and Social Sciences**

**Department of Social Sciences**

**Copyright**

© 2019 Chalimbana University

2023 Edition

All rights reserved.

No part of this publication may be reproduced, stored in a retrievable system, or transmitted in any form or by any means, electronic, mechanical, photocopying or recording or otherwise without prior written permission of the copyright owner, Chalimbana University.

Chalimbana University

School of Humanities and Social Sciences

Department of Social Sciences

Private Bag E 1

Chongwe

Zambia

**Acknowledgements**

Chalimbana University wishes to thank Edith Sikota-Habwanda for her contribution in the production of this module.

|  |  |
| --- | --- |
|  |  |

**MODULE OVERVIEW**

Welcome to the first of the third series of the LBL courses. This module continues with the content that you covered in LBL 2101: The Structure of Bantu Languages. In this module I have selected the seven Zambian Languages and in fewer instances reference has been made to other Bantu languages, especially those in neighbouring countries. Should you be a student training to teach a language outside Zambia, you are advised to analyse through glossed constituents what is discussed here to ascertain the existence of such phenomena in your language.

The previous module dealt with the structure of Bantu Languages in general. In this module, we have narrowed to specifics. It deals with salient issues in the phonology and morphology of basically the seven regional official languages; ciTonga, ciNyanja, iciBemba, kiKaonde, Lunda, Luvale, and siLozi. (Although this is the latest presentation of the language names, (see Banda etal, 2014), these languages have been presented as Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga.

As you are quite aware that the phonological aspect in LBL 2101 heavily dealt with Proto-Bantu phonemes, both segmental and suprasegmental, in this module, we have presented phonemes of the Zambian languages. The charts provided guide you in the descriptions of these phonemes. Feature matrices have also been given, based on the features given for Proto-Bantu. The synchronic rules applying on these languages have also been discussed.

The morphology has distinguished between variable and invariable forms. It has discussed mainly the nouns, bringing out the various forms initiated by various affixes and the various processes and rules in word formation. The main types of morphology; inflectional and derivational have been discussed, including stabilisation in nominals.

You are advised to analyse critically the sounds of your own language and bring forth what may be missing and any salient features of interest, as you know, language is inexhaustible.

Introduction

This course deals with the various aspects of the phonology and morphology of a Bantu language. The course includes, at phonology level, the establishment of the phonemes of Zambian languages, being Bantu languages and their distinctive features. It further looks at the various phonological and morphological rules, and processes at word level and word boundary. It also deals with the interface between phonology and morphology.

Rationale

The course will equip you with adequate skills of the phonemes of a Bantu language and the rules for the combinations of phonemes to form words, including the rules at word level. You will be able to use the appropriate spelling systems with correct combinations at phonology and morphology levels.

Aim

The aim of the course is two-fold;

1. to give you knowledge of how to establish an inventory of the phonemes present in your local language and;
2. to help you identify and simulate the various morphological processes in Bantu, specifically your local language.

Learning Outcomes

At the end of the course, you are expected to;

* provide the inventory of phonemes of your local language.
* identify the distinctive features among the phonemes of a Bantu language.
* explain the phonological rules that apply in your local language.
* identify and explain prosodic features commonly used in some Bantu languages.
* explain the morpho-phonological rules in selected Bantu languages.
* give an account of morphological processes in a given Bantu language.

**TABLE OF CONTENTS**

[**Copyright i**](#_Toc131783169)

[**Acknowledgements ii**](#_Toc131783170)

[**MODULE OVERVIEW iii**](#_Toc131783171)

[**Introduction iii**](#_Toc131783172)

[**Rationale iii**](#_Toc131783173)

[**Aim iv**](#_Toc131783174)

[**Learning Outcomes iv**](#_Toc131783175)

[**TABLE OF CONTENTS v**](#_Toc131783176)

[**Summary ix**](#_Toc131783177)

[**Study Skills xi**](#_Toc131783178)

[**Time Frame xii**](#_Toc131783179)

[**Need Help? xii**](#_Toc131783180)

[**Required Resources xiii**](#_Toc131783181)

[**Assessment xiii**](#_Toc131783182)

[**References xiii**](#_Toc131783183)

[**UNIT 1 1**](#_Toc131783184)

[**INVENTORY OF PHONEMES OF SELECTED BANTU LANGUAGES 1**](#_Toc131783185)

[**1.0 Introduction 1**](#_Toc131783186)

[**Learning Outcomes 1**](#_Toc131783187)

[**1.1 Segmental phonology 1**](#_Toc131783188)

[**1.1.1 Vowels 2**](#_Toc131783189)

[**1.1.1.1 Tonal minimal pairs 3**](#_Toc131783190)

[**1.1.2 Semi-Vowels 7**](#_Toc131783191)

[**1.1.3 Consonants 8**](#_Toc131783192)

[**Activity 1.1 18**](#_Toc131783193)

[**1.2 Suprasegmental elements 18**](#_Toc131783194)

[**Activity 1.2 24**](#_Toc131783195)

[**Summary 24**](#_Toc131783196)

[**UNIT 2 25**](#_Toc131783197)

[**FEATURES PHONOLOGY 25**](#_Toc131783198)

[**2.0 Introduction 25**](#_Toc131783199)

[**Learning Outcomes 25**](#_Toc131783200)

[**2.1 Segmental features of phonemes in Bantu Languages 25**](#_Toc131783201)

[**2.2 Phonetic and phonemic feature matrices 27**](#_Toc131783202)

[**Activity 2.1 36**](#_Toc131783203)

[**Summary 37**](#_Toc131783204)

[**UNIT 3 37**](#_Toc131783205)

[**PHONOLOGICAL RULES IN SOME BANTU LANGUAGES 37**](#_Toc131783206)

[**3.0 Introduction 37**](#_Toc131783207)

[**Learning Outcomes 38**](#_Toc131783208)

[**3.1 Allophonic rules in some Zambian Languages 38**](#_Toc131783209)

[**3.1.1 Some allophonic rules operating on vowels 39**](#_Toc131783210)

[**3.1.2 Some allophonic rules operating on consonants 42**](#_Toc131783211)

[**Activity 3.1 47**](#_Toc131783212)

[**Summary 47**](#_Toc131783213)

[**UNIT 4 48**](#_Toc131783214)

[**SYLLABLE STRUCTURE OF BANTU 48**](#_Toc131783215)

[**4.0 Introduction 48**](#_Toc131783216)

[**Learning Outcomes 48**](#_Toc131783217)

[**4.1 Syllable structure 48**](#_Toc131783218)

[**4.2 Types of syllable and syllable structures 49**](#_Toc131783219)

[**4.3 Syllable rules in Zambian languages 52**](#_Toc131783220)

[**4.4 Order of consonant clusters in the Onset 52**](#_Toc131783221)

[**4.5 Syllable segmentation and tree diagrams 53**](#_Toc131783222)

[**Activity 4.1 55**](#_Toc131783223)

[**Summary 55**](#_Toc131783224)

[**UNIT 5 56**](#_Toc131783225)

[**MORPHOLOGICAL ASPECTS OF A BANTU LANGAUGE 56**](#_Toc131783226)

[**5.0 Introduction 56**](#_Toc131783227)

[**Learning Outcomes 56**](#_Toc131783228)

[**5.1 Variable and invariable forms 56**](#_Toc131783229)

[**5.2 Bantu word classes 57**](#_Toc131783230)

[**5.2.1 Variable Word Classes 57**](#_Toc131783231)

[**5.2.2 Invariable Word Classes 58**](#_Toc131783232)

[**5.3 Morphological inflection and derivation 61**](#_Toc131783233)

[**5.4 The differences between inflection and derivation 62**](#_Toc131783234)

[**5.5 Morphological terms used in Bantu Linguistics 63**](#_Toc131783235)

[**Concord Prefix 63**](#_Toc131783236)

[**Class 64**](#_Toc131783237)

[**Dependent Prefix 65**](#_Toc131783238)

[**Independent Prefix 65**](#_Toc131783239)

[**Independent Nominal 66**](#_Toc131783240)

[**Dependent nominal 66**](#_Toc131783241)

[**Stem 66**](#_Toc131783242)

[**Verbal 66**](#_Toc131783243)

[**Radical and Extended Radical (Extension) 67**](#_Toc131783244)

[**Types of radicals 67**](#_Toc131783245)

[**Types of verbal extensions 68**](#_Toc131783246)

[**Applied /Benefactive/ Applicative extension 68**](#_Toc131783247)

[**Passive extension 68**](#_Toc131783248)

[**Causative extension 68**](#_Toc131783249)

[**Reversive extension 69**](#_Toc131783250)

[**Reciprocative extension 69**](#_Toc131783251)

[**Repetitive extension 69**](#_Toc131783252)

[**Intensive extension 69**](#_Toc131783253)

[**Perfective extension 70**](#_Toc131783254)

[**Extensive extension 70**](#_Toc131783255)

[**Stative extension –ik- 70**](#_Toc131783256)

[**Verbal Morphemes 70**](#_Toc131783257)

[**Tense sign, Suffix 71**](#_Toc131783258)

[**Base 71**](#_Toc131783259)

[**5.6 Types of morphemes 72**](#_Toc131783260)

[**5.7 The Morph and Allomorphy 74**](#_Toc131783261)

[**Types of morphs 74**](#_Toc131783262)

[**Activity 5.3 76**](#_Toc131783263)

[**Summary 76**](#_Toc131783264)

[**UNIT 6 78**](#_Toc131783265)

[**MORPHOPHONOLOGICAL RULES AND PROCESSES 78**](#_Toc131783266)

[**6.0 Introduction 78**](#_Toc131783267)

[**Learning Outcomes 78**](#_Toc131783268)

[**6.1 Morphophonological processes in nominals 78**](#_Toc131783269)

[**Activity 6.1 82**](#_Toc131783270)

[**6.2 Morpho-phonological rules in verbals 83**](#_Toc131783271)

[**Activity 6.2 85**](#_Toc131783272)

[**Summary 85**](#_Toc131783273)

[**UNIT 7 86**](#_Toc131783274)

[**STABILIZATION 86**](#_Toc131783275)

[**7.0 Introduction 86**](#_Toc131783276)

[**Learning Outcomes 86**](#_Toc131783277)

[**7.1 The concept of ‘stabilisation’ 86**](#_Toc131783278)

[**7.2 Noun stabilization in Bemba. 86**](#_Toc131783279)

[**7.3 Noun stabilization in Tonga 87**](#_Toc131783280)

[**7.3.2 Definite stabilisation in Tonga 89**](#_Toc131783281)

[**7.4 Noun stabilization in Kaonde 90**](#_Toc131783282)

[**7.5 Stabilization of adjectives 91**](#_Toc131783283)

[**7.6 Stabilisation in other constituents 92**](#_Toc131783284)

[**Activity 7.1 93**](#_Toc131783285)

[**Summary 94**](#_Toc131783286)

[**REFERENCES** 95](#_Toc131783287)

Summary

There are two parts in this module. The first part is on phonology while the second one is on morphology.

The phonology part deals with synchronic account of the phonology of some Zambian Languages. A synchronic account of these languages has included the identification of segmental and supra-segmental phonemes as well as the formulation of phonological rules for both segments and suprasegments. Segmental phonemes of Zambian languages vary from one language to another. However, the vowel system and semivowels are the same for all the Zambian languages.

The feature matrixes, following the features discussed for Proto-Bantu segments in LBL 2101, repeated in this course, have been formulated for most of the regional Zambian languages (except Luvale). Allophonic rules have also been discussed, including phonetic realization of particular consonantal phonemes. The syllable structure with focus on Zambian languages has also been discussed. It is evident that there is a difference between the syllable structure in English and Bantu languages.

The morphological part deals with the morphological structure of the word classes of the Zambian languages before discussing the morphological processes that apply within words and at word boundary. The categories of invariable and invariable forms have been discusses and the distinction between inflectional and derivational phonology in Bantu. Morphological processes and morphophonological rules applied in nominals and verbals in some Bantu languages have also been dealt with.

Unit 1 gives the inventories of segmental phonemes of Zambian Languages as part of Bantu languages. Both consonants and vowels have been discussed, including suprasegmental features.

Unit 2 deals with phonological rules in Bantu. This has discussed allophonic rules applying on vowels and consonants.

Unit 3 deals with Feature phonology, presenting matrices of segmental phonemes. Aspects of feature theory have been utilised in the analysis of segmental phonology. Both phonetic and phonemic matrices have been given.

Unit 4 has discussed the syllable structure of Zambian Languages, comparing some characteristics of the syllable with the English language. Unit 5 turns to the morphological structure of a Bantu nominals.

Unit 6 deals with morphological inflection and derivation, focusing on the differences between inflection and derivation as well as how the two differ in English and Zambian languages. Types of morphemes have been discussed as well. The concept of stabilisation has also been discussed, including morpho-phonological processes.

Study Skills

As an adult learner your approach to learning will be different to that from your school days: you will choose what you want to study, you will have professional and/or personal motivation for doing so and you will most likely be fitting your study activities around other professional or domestic responsibilities.

Essentially you will be taking control of your learning environment. As a consequence, you will need to consider performance issues related to time management, goal setting, stress management, etc. Perhaps you will also need to reacquaint yourself in areas such as essay planning, coping with exams and using the web as a learning resource.

Your most significant considerations will be *time* and *space* i.e. the time you dedicate to your learning and the environment in which you engage in that learning.

We recommend that you take time now—before starting your self-study—to familiarize yourself with these issues. There are a number of excellent resources on the web. A few suggested links are:

<http://www.how-to-study.com/>

The “How to study” web site is dedicated to study skills resources. You will find links to study preparation (a list of nine essentials for a good study place), taking notes, strategies for reading text books, using reference sources, test anxiety.

<http://www.ucc.vt.edu/stdysk/stdyhlp.html>

This is the web site of the Virginia Tech, Division of Student Affairs. You will find links to time scheduling (including a “where does time go?” link), a study skill checklist, basic concentration techniques, control of the study environment, note taking, how to read essays for analysis, memory skills (“remembering”).

<http://www.howtostudy.org/resources.php>

Another “How to study” web site with useful links to time management, efficient reading, questioning/listening/observing skills, getting the most out of doing (“hands-on” learning), memory building, tips for staying motivated, developing a learning plan.

The above links are our suggestions to start you on your way. At the time of writing these web links were active. If you want to look for more go to [www.google.com](http://www.google.com) and type “self-study basics”, “self-study tips”, “self-study skills” or similar.

Time Frame

One year comprising three residential schooling; two (2) weeks of contact sessions per residential school. You need three (3) hours for formal study per week and you are expected not to spend less than ten (10) hours per week for self-study.

Need Help?

Contact: Edith Sikota-Habwanda

Email: [edithhabwanda@yahoo.com](mailto:edithhabwanda@yahoo.com)

Office: Tutorial Block 1, Room 6

Required Resources

Apart from this module, as you may be interested in learning more on this subject, I have provided you with a list of recommended readings; these are books, articles and websites.

**Assessment**

**Continuous Assessment 50%**

One assignment 20%

One seminar presentation 10%

One test 20%

**Final examination 50%**

**Final mark 100%**

References

Collins, B. (1962). *Tonga Grammar*. Lusaka: Neczam.

Crystal, D. (1991). *A Dictionary of Linguistics and Phonetics*. 3rd Edition. Cambridge: CUP.

Mann, Micheal (1999) *An Outline of Icibemba Grammar.* Lusaka: Bookworld Publishers.

**UNIT 1**

**INVENTORY OF PHONEMES OF SELECTED BANTU LANGUAGES**

1.0 Introduction

When we talk of present Bantu, you should be aware that all the Bantu languages spoken today are part. You are also aware that all the Zambian languages are in this category. Before going into the study of phonology of Zambian languages or of any Bantu language, be reminded of the difference between phonetics and phonology. Phonetics is about the physical aspect of sounds. It studies the production and the perception of sounds, called phones. Phonology is about establishing what the phonemes in a given language are, i.e. those sounds that can bring a difference in meaning between two words. It is about the abstract aspect of sounds and it studies the phonemes. Phonetic transcriptions adopt square brackets ([ ]) whereas phonemic transcriptions adopt the slash (/ /). A phoneme is a phonic segment with a meaning value, for example in minimal pairs:

Tonga: lala ‘sleep’ => lela ‘nurse’ (a baby)

Nyanja: longa ‘pack’ => lenga ‘make’

Learning Outcomes

By the end of the unit, you are expected to;

* provide a full inventory of the phonetic and phonemic inventories of at least two local languages in charts;
* discuss the supra-segments present in some Zambian languages.
* show the distinctive nature of phonemes.

**1.1 Segmental phonology**

Phonology is traditionally dealt with in two parts. These are;

* Segmental phonology, which deals with abstract sounds in exclusion of features such as tone, length and stress; and
* Supra-segmental phonology, which deals with tone, length (or quantity) and stress.

In phonology, the basic unit is called a phoneme. A phoneme is defined by Matthews (1997: 276) as “the smallest distinct sound unit in a given language.” A phoneme is either an abstract sound (in exclusion of any supra-segments such as tone, length, stress) or an abstract supra-segment (tone, length, stress) that is distinctive. It is a meaning-distinguishing sound in a language, the essential property of any phoneme. A phoneme can be made up of different sounds which we call allophones, for example, the /b/ can be realised as [b] when it comes after a nasal [m] as in the Bemba word *imbale* ‘friend’ or it can be realised as a fricative [β] elsewhere other than in the position where it comes after a nasal, e.g. *abana* ‘children’. Note that the slashes (/ /) are used to indicate a phoneme, an abstract segment, as opposed to square brackets ([ ]) which are used for each phonetic (a physically pronounced) segment.

**1.1.1 Vowels**

In the previous courses, we discussed what vowels are. Can you recall and be able to distinguish them from other phonemes? What is the inventory of the Proto-Bantu vowels? What is the difference between Proto-Bantu vowels and vowels in the seven Zambian languages? Speakers of the seven regional languages in Zambia do identify the same inventory of vowels, namely [i], [e], [a], [o], and [u] which we classify in the phonetic chart below as:

**A phonetic chart of vowels**

|  |  |  |
| --- | --- | --- |
|  | **Front** | **Back** |
| **High** | i | u |
| **Mid** | e | o |
| **Low** |  | a |

Note that the phonetic chart of vowels has been arranged according to the production and classification of vowels in which the tongue plays a big role.

In each of the seven regional languages of Zambia, each of the five vowels above has a phonemic status, that is, it is a phoneme as it can distinguish a word from another, refer to examples given below (minimal pairs). Therefore, the inventory of vowel phonemes is the same as that of vowel sounds:

**A phonemic chart of vowels**

|  |  |  |
| --- | --- | --- |
|  | **Front** | **Back** |
| **High** | I | u |
| **Mid** | E | o |
| **Low** |  | a |

**1.1.1.1 Tonal minimal pairs**

The phonemic status of a segment or supra-segment is established by using minimal pairs or near minimal pairs. The set of vowels in each of the seven regional languages of Zambia is contrastively illustrated according to languages below. Note that the vowel phonemes written before the examples are all distinctive in the words given below in that they are contrasting the meaning of these sets of words by one segment or position in a particular slot.

**1.** **Bemba**

i/e/a/o/u ukulila [úkúlílá] ‘to cry’

ukulela [ùkúlélá] ‘to nurse (a child)’

ukulala [úkúlálá] ‘to break’

ukulola [ukulola] ‘to be awake’

ukulula [úkúlúlá] ‘to be/become bitter’

e/o ukulemba [úkùlé:mbá] ‘to write’

ukulomba [úkùló:mbá] ‘to beg, to ask for’

**2. Kaonde**

i/a/o kubila [kùβìlà] ‘to come to the boil/ to boil’

kubala kùβàlà] ‘to count’

kubola kùβòlà] ‘to rot’

e/u kulela [kùlèlà] ‘to nurse (a child)’

kulula [kùlùlà] ‘to be/become bitter’

i/a muzhi [mùžì] ‘village’

muzha ‘[mùžà] slave’

**3. Lozi**

i/e kulima [kùlìmà] ‘to cultivate’

kulema [kùlèmà] ‘to cut’

i/u kubiza [kùβízà] ‘to call’

kubuza [kùβúízà]‘to ask’

u/a/o kuluta [kùlútà] ‘to teach’

kulata [kùlátá] ‘to love, to like’

kulota [kùlótà] ‘to dream’

**4. Lunda**

i/u mukila [mùkílà] ‘tail’

mukala [mùkálà] ‘village’

e/o kulemba ‘to plead (for mercy)’

kulomba ‘to beg for, to ask for’

e/u kuyeeka [kùjè:tà] ‘to eat slowly’

kuyuuka [kùjû:kà] ‘to cure’

i/e kuhila [kùhìlà] ‘to be angry’

kuhela [kùhélà] ‘to hate’

u/o kukula [kùkúlà] ‘to grow (up)’

kukola [kùkòlà]

**5.** **Luvale**

i/e kulila [kùlìlà] ‘to cry’

kulela [kùlèlà] ‘to nurse (a child)

kulima [kùlìmà] ‘to cultivate’

kulema [kùlèmà] ‘to be heavy’

u/o kulumba [kùlùmbà] ‘to burn (person/animal)’

kulomba [kùlòmbà] ‘to colour, to change the colour of’

u/a kusunda [kùsùndà] ‘to have sex with’

kusanda [kùsàndà] ‘to peck’

**6. Nyanja**

i/e/u/o kulila [kùlîlà] ‘to cry’

` kulela [kùlêlà] ‘to nurse (a child)’

kulola [kùlôlà] ‘to allow’

kulula [kùlûlà] ‘to be/become bitter’

i/e kulima [kùlîmà] ‘to cultivate

kulema [kùlêmà] ‘to be/become heavy, to be/become tired’

**7.** **Tonga**

(The ɣ is an IPA symbol representing the voiced velar fricative)

i/e/a/o/u kulìmba [ɣùlìmbà] ‘to cover, to copulate (used many for cattle), to fall down’

kulemba [ɣúlèmbà] ‘to write’

kulamba [ɣùlàmbà] ‘to smear (body)’

kulomba [ɣúlòmbà] ‘to beg, to ask for, to pray’

kulumba [ɣùlùmbà] ‘to praise, to thank’

i/e kulila [ɣùlìlà] ‘to cry’

kulela [ɣùlèlà] ‘to nurse (a child)’

One other phenomenon that has been established among the Zambian regional languages is that the mid vowels /e/ and /o/ tend to be realized as low-mid [e] and low-mid [o] respectively before a pre-nasalized consonant cluster (i.e. mp, mb, nt, nd etc). The examples provided above illustrate that the given segments are phonemes, in the sense that they distinguish meaning of two or more similar words. While we can distinguish between tense vowels and lax vowels in English language, vowels in most Bantu languages tend to be tense; they are produced with greater muscle tension in the articulators.

Each language in the seven regional languages has semi-vowels and consonants in addition to vowels.

**1.1.2 Semi-Vowels**

As was the case where vowels were classified according to either place of articulation or manner of articulation, there will be no difference between vowels and semi-vowel sounds with vowel and semi-vowel phonemes. The number will be equal. Below are two charts showing semi-vowels according to how they are produced:

Either

**Semi-vowels according to place of articulation**

|  |  |
| --- | --- |
| **Palatal** | **Velar** |
| j | w |

or

**Semi-vowels according to tongue movement**

|  |  |
| --- | --- |
| **Front** | **Back** |
| j | w |

What then can we say about the above presentation? Well, /j/ is a palatal front semi-vowel while /w/ is a velar back semi-vowel.

**1.1.3 Consonants**

The number of phonetic consonants and phonemic consonants will be different, unlike the vowel and semi-vowel segments we have looked at above. In synchronic linguistics, the IPA symbols are used. Hence, we are going to follow those unlike in the presentation of Proto-Bantu where a traditional presentation of phonemes such as /y/ and /c/ for the palatal front semi-vowel and voiceless post-alveolar affricate, respectively, was done.

Note that in the presentation of Zambian languages consonants, aspiration only involves some plosive consonants in Nyanja and Luvale as given in the table below.

|  |  |  |
| --- | --- | --- |
| **Segment description** | **In non-phonetic Transcriptions** | **In phonetic transcriptions** |
| Aspirated p | ph | ph |
| Aspirated t | th | th |
| Aspirated k | kh | kh |
| Aspirated c | ch | ch |

Below are consonant charts for both phonetic consonants and phonemic consonants. The charts represent all the seven Zambian regional languages.

Note that a symbol preceded by \* represents a segment that is always pre-nasalized (preceded by a nasal), e.g. \*g means that the segment *g* only occurs in *ng* as in *ingoma* ‘drum’.

**Bemba phonetic chart**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |
| Stop | p \*b |  | t \*d |  |  | k \*g |
| Fricative | β | f | s | ʃ |  |  |
| Affricate |  |  |  | tʃ \*dʒ |  |  |
| Lateral |  |  | l |  |  |  |

**Bemba Phonemic chart**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + |
| Nasal | m |  | n |  |  | ŋ |
| Stop | p |  | t |  |  | k |
| Fricative | β | f | s |  |  |  |
| Affricate |  |  |  | tʃ |  |  |
| Lateral |  |  | l |  |  |  |

**Kaonde** **phonetic chart**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + |
| Nasal | m |  | n |  | ᶮ | η |
| Stop | p |  | t \*d |  |  | k \*g |
| Fricative | β | f v | s z | ∫ ʒ |  |  |
| Affricate |  |  |  | t∫ dʒ |  |  |
| Flap |  |  | r |  |  |  |

**Kaonde phonemic chart**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |
| Stop | p |  | t |  |  | k |
| Fricative | β | f v | s z | ʃ ʒ |  |  |
| Affricate |  |  |  | tʃ |  |  |
| Lateral |  |  | l |  |  |  |

**Lozi phonetic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |  |
| Stop | p \*b |  | t \*d |  |  | k \*g |  |
| Fricative | β | f | s z | ʃ |  |  | h |
| Affricate |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Lozi phonemic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |  |
| Stop | p |  | t |  |  | k \*g |  |
| Fricative | β | f | s z | ʃ |  |  | h |
| Affricate |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

Partially adopted from Mwisiya (1989:2)

**Lunda Phonetic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |  |
| Stop:  *Simple*  *Labialized* | p b |  | t d  tw |  |  | k |  |
| Fricative |  | f v | s z | ʃ ʒ |  |  | H |
| Affricate |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Lunda Phonemic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labio-dental  - + | Alveolar  - + | Post-alveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |  |
| Stop | p b |  | t d |  |  | k |  |
| Fricative |  | f v | s z | ʃ ʒ |  |  | h |
| Affricate |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Luvale phonetic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial | Labio-dental | Alveolar | Post-alveolar | Palatal | Velar | Glottal |
| Nasals | m |  | n |  | ɲ |  |  |
| Stops:  *Unaspirated*  *Aspirated* | p  ph |  | t  th |  |  | k  kh |  |
| Fricatives |  | f \*v | s z | ʃ ʒ |  |  | h |
| Approximant |  | ʋ |  |  |  |  |  |
| Affricates |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Luvale Phonemic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial | Labio-dental | Alveolar | Post-alveolar | Palatal | Velar | Glottal |
| Nasals | m |  | n |  | ᶮ |  |  |
| Stops:  Unaspirated  Aspirated | p  ph |  | t  th |  |  | k  kh |  |
| Fricatives |  | f | s z |  |  |  | h |
| Approximant |  | ʋ |  |  |  |  |  |
| Affricates |  |  |  | tʃ \*dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Nyanja phonetic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial | Labio-dental | Labio-alveolar | Alveolar | Post-alveolar | Palatal | Velar |
| Nasals | m |  |  | n |  | ᶮ | ŋ |
| Stops:  *Unaspirated*  *Aspirated* | p b  ph |  |  | t d  th |  |  | k g  kh |
| Fricatives |  | f v |  | s z |  |  |  |
| Affricates |  |  | ps bz | ts dz | tʃ dʒ |  |  |
| Lateral |  |  |  | l |  |  |  |
| Trill |  |  |  | r |  |  |  |

**Nyanja Phonemic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial | Labio-dental | Labio-alveolar | Alveolar | Post-alveolar | Palatal | Velar |
| Nasals | m |  |  | n |  | ᶮ | ŋ |
| Stops:  *Unaspirated*  *Aspirated* | p b  ph |  |  | t d  th |  |  | k g  kh |
| Fricatives |  | f v |  | s z |  |  |  |
| Affricates |  |  | ps bz | ts dz | tʃ dʒ |  |  |
| Lateral |  |  |  | l |  |  |  |
| Trill |  |  |  | r |  |  |  |

(Adopted, with amendments, from Chanda, 2006)

**Tonga Phonetic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ᶮ | ŋ |  |
| Stop | p b |  | t d |  |  | k g |  |
| Fricative | β | (f) (v) | s z | (∫) |  | ɣ | h ɦ |
| Affricate |  |  |  | t∫ dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Tonga Phonemic chart**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Bilabial  - + | Labiodental  - + | Alveolar  - + | Postalveolar  - + | Palatal  - + | Velar  - + | Glottal  - + |
| Nasal | m |  | n |  | ր | ŋ |  |
| Stop | p b |  | t d |  |  | k g |  |
| Fricative | β | (f) (v) | s z | (∫ ) |  |  | h ɦ |
| Affricate |  |  |  | ∫ dʒ |  |  |  |
| Lateral |  |  | l |  |  |  |  |

**Activity 1.1**

|  |
| --- |
| 1. What do you understand by the term ‘minimal pair’? 2. Distinguish between Proto-Bantu and Zambian Languages vowels. 3. Identify and present in a chart all consonants common to all the seven regional languages. 4. For each of the seven regional languages of Zambia, present phonetic charts. 5. Distinguish phonemes of your local language with those of any other Zambian language. |

**1.2 Suprasegmental elements**

A supra-segment, or supra-segmental feature, also called prosodic unit, is a vocal effect that extend or is capable of extending over more than one sound segment. The major types of supra-segments or prosodic features are:

* Pitch (tone);
* Length (also called quantity); and
* Stress.

It is important to note that two types of supra-segments are relevant to the phonology of the seven regional Zambian languages; tone (pitch) and length (quantity). Although some Zambian languages such siLozi claim to have stress (Mwisiya, 1989:9), most of the Zambian languages like iciBemba do not use stress (Mann, 1999: 9). The locatives in siLozi, for instance are said to be stressed.

**ii. Tone**

The concept of tone is not new to you. Will you recall the use of tone in any language? Yes. Tone is distinctive (that is, it can distinguish words) in all seven Zambian regional languages.

All Bantu languages are said to be tone languages. Tone is a feature that in fact distinguishes Bantu languages from other many African languages.

A **tone language** is a language in which tone (pitch) plays a lexical role (in distinguishing lexemes (i.e. lexical units/words) or/and a grammatical role (in distinguishing sentential constructions, for example, some tenses). Therefore, all the seven regional Zambian languages are tone languages.

The unit of pitch is called a **tone**. The term ‘tone’ refers to the minimal feature of pitch in both phonetics and phonology, but in phonology the term **toneme** may be used and variants of a **toneme** are called **allotones**. Can you think of words that can be distinguished by tone in your language?

<https://www.google.co.zm/search?source=hp&ei=Be7pXubRItKZ1fAP8d6g-AE&q=tone+language+in+linguistics>, downloaded on 23.06.19.

Now, a sound segment capable of bearing a tone is called a tone bearing unit. Tone bearing units are vowels and, in some languages, certain consonants in some positions. Tone bearing units in the seven Zambian regional languages are vowels and word-initial nasals of prenasalized consonants (eg. words with mb, mp, nt, nd, ng, nd etc).

There are two main types of tones: register tones and contour tones.

1. **Register tones,** also called Simple tones. Register-tone languages use tones that are level; i.e., they have relatively steady-state pitches, which differ with regard to being relatively higher or lower. The following are the tones types, although the common ones in the seven Zambian languages are high and low:

* **high tone** (H), symbolized by the acute accent on top of the tone bearing unit, as illustrated in **á**;
* **low tone** (L), symbolized by the grave accent, as illustrated in **à**; and
* **mid tone** (M), symbolized by a short vertical line on top of the relevant segment.

(b) **Compound tones**, also called **contour tones**, which are combinations of level tones. Two sub-types of this kind are exemplified below:

* **High-low** (HL) falling tone, for example the tone of the first syllable in the Bemba word **ninkwata** [nî:ƞkwátá] ‘I have, I am holding’ (If you don’t speak Bemba, ask a Bemba speaker to pronounce the word), or in the second syllable of the Nyanja word for ‘tree’, **mtengo** [mtêƞgò] (If you do not speak Nyanja, ask a Nyanja speaker to pronounce the word), ;
* **Low-high** (LH) rising tone as in Tonga: **gwala** [gwǎla] ‘mark’

Note the following:

1. Contour tones, although they are distinctive, will be treated as mere combinations of level tones;
2. No distinction will be made between high and mid tones in transcriptions;
3. Except in phonetic transcriptions (these signaled by square brackets), low tones will not be marked; and
4. In phonemic transcriptions, contour tones on long vowels will be symbolized as shown in **áa** (long **a** with a falling tone), **aá** (long **a** with a rising tone); in phonetic transcriptions they will be: symbolized as shown in **â:** (long **a** with a falling tone), **ă:** (long a with a rising tone).

We can look at examples on tonal contrasts:

8. Bemba

a. úkubómbá ‘to work’

b. ukúbómbá ‘to be/become wet/soaked’

a. ímpanga ‘forest/bush’

b. împánga ‘sheep’

a. ukúlúká ‘to plait’

b. úkulúká ‘to vomit’

9. Kaonde

a. ubeena kujima ‘he/she is cultivating’

b. úbeena kujima ‘you-sg are cultivating’

c. ubeenâ kujima ‘(the one) who is cultivating’

10. Lozi

a. liheta ‘shoes

b. lihéta ‘shoulder’

a. kusíla ‘to cross’

b. kusila ‘to crush’

11. Lunda

a. mukanda ‘circumcision (camp)’

b. mukânda ‘letter’

a. /wáálanda/ ‘you-sg have bought’

b. /waalanda/ ‘he has bought’

12. Luvale

a. mukanda ‘circumcision (camp)’

b. mukânda ‘letter’

a. kufula ‘to dig up’

b. kufúla ‘to forge’

13. Nyanja

a. mtengo ‘price’

b. mtêngo ‘tree’

14. Tonga

a. ulabona ‘you-sg see’

ulábona ‘he/she sees’

b, cíbándá ‘plain’

cibanda ‘molar’

c. cilundu ‘lump’

cílúndú ‘hill’

You can provide as many examples as you can to show that most Bantu languages are tonal, although they some that highly dependent on tone.

**(ii)** **Length**

Length is distinctive (i.e. can distinguish words) in all the seven regional languages other than Luvale. Below are examples of length contrasts in Bemba, Kaonde, Lunda and Tonga. I am sure it is easy for you to provide distinctive words under this category.

15. Bemba

a. ukúnóná ‘to be/become fatty’

b. ukúnóóná ‘to sharpen’

c. ukúpálá ‘to scratch

d. ukúpáálá ‘to bless’

16. Kaonde

a. kumoona ‘at/to the nose’

b. kumona ‘to see’

c. kúbula ‘to lack’

d. kúbuula ‘to tell

e. kulela ‘to nurse (child)’

f. kuleela ‘to be/become week’

17. Lunda

a. kupepela ‘to be/become light’

b. kupepeela ‘to dry over fire’

18. Tonga

a. kubola ‘to get rotten’

b. kuboola ‘to come’

a. mali ‘money’

b. maali ‘poligamy’

a. buka ‘wake up’

b. buuka ‘ants’

As already indicated, length is distinctive in Bemba, Kaonde, Lozi, Lunda and Tonga, but not in Luvale and Nyanja. In some languages, length can distinguish between a word and a phrase or syntactic expression.

|  |
| --- |
| **Activity 1.2**   1. Describe the vowel system of Zambian languages. 2. Show the difference between a supra-segment and a segment. 3. With an example in a Zambian language, explain what is meant by, ‘Tone is distinctive’? 4. Two types of prosodic units perform two phonological roles. Mention the roles and the types of features. You provide examples too for each one.   **Summary**  This unit has dealt with the inventory of phonemes in some Bantu languages, specifically, Zambian languages. It has looked at vowels, semi-vowels and consonants that exist in each of the languages. These vary from one language to another. Tone, length and stress as supra-segmental features have also been discussed. |

**UNIT 2**

**FEATURES PHONOLOGY**

2.0 Introduction

This is not the first time you are coming across the topic on features of phonemes of a language. Can you recall the features that were discussed under the study of Proto-Bantu in LBL 2101? The features that we are to describe here will include those that were used to describe the PB segmental system including some features for segments that are absent in Proto-Bantu.

Learning Outcomes

By the end of this unit, you are expected to;

* explain the features used in the description of sound segments in feature phonology.
* present feature matrices for phonemes of a given language.

**2.1 Segmental features of phonemes in Bantu Languages**

Under Feature phonology, segments are analysed using one or more features that would distinguish one phoneme from the other. Check your list of features if you have covered all of these.

1. Consonantal (cons): partial or total obstruction of the airstream somewhere in the vocal tract (i.e. somewhere between the larynx inclusive and the mouth inclusive). All and only consonants are [+ cons] (consonantal); All the other segments are [-cons] (non-consonantal).
2. Vocalic (voc): in the production of segments, there is narrowing of the oral cavity with no obstruction of the airstream. The spectrogram of the sound displays at least two well-defined formants (i.e formants which can be seen clearly). A formant is a kind of picture in the form of a black band for some sounds by which a spectrograph, an instrument used in acoustic phonetics provides a visual representation of acoustic energy of the sounds of the utterance. All vowels, liquids and nasals are [+ voc].
3. Sonorant (son): articulation such that voicing (= vibration of the vocal cords) is naturally expected. [+ son] segments are: all vowels, all glides (= semi-vowels), all nasals, all liquids (= l -sounds and r-sounds). All the other segments are [-son].
4. Syllabic (syll): nucleus (or peak) of a syllable. All vowels are [+syll]. In certain languages, certain consonants (especially nasals and liquids) may be [+syll] in certain positions. For PB, it is assumed that all and only vowels are [+syll] and all the other segments are [-syll].
5. Nasals (nas): the uvula is lowered so that the airstream keeps flowing from the nasal cavity (i.e. through the nostrils). All and only nasals and nasals complexes (mb, mp, nt, nd) are [+nas] in PB.
6. Anterior (anti): there is a partial or total obstruction of the airstream somewhere in front of the palato-alveolar area. Note that because of the term ‘obstruction’ only a consonant can be [+ant]. [+ant] segments are: bilabials, e.g. /m/, and alveolar (e.g. /n, t, d/).
7. Back:- retraction (background movement) of the body of the tongue. Note that, unlike for the feature [anterior], a semi-vowel and a vowel can be [+back]. Among consonants, only velars and uvulars are [+back]. According to the definition, back segments are segments produced in the back part of the mouth.
8. Coronal (cor): the blade of the tongue (i.e. the front part of the tongue) is raised above the neutral position. Sounds with this feature include alveolars, postaveolars, retroflexes, dentals and palatals. However, some authors have argued that front vowels are also coronal. Therefore, we can add the front high vowels.
9. Voice: Vibration of the vocal cords. Note that all vowels, nasals, semi-vowels and liquids (i.e. l- and r-sounds) are [+voice]. Others include voiced stops, voiced fricatives and voiced affricates. All sounds produced with vibration in the vocal cords are [+ Vce].
10. 1high; 2 high; 3 high and 4 high; These features have been chosen to refer to the various vertical position of the tongue (= tongue-height) as follows: 4 high = high; 3 high = high-mid, 2 high = low-mid; 1high = low, (Crystal, 1991).

**2.2 Phonetic and phonemic feature matrices**

In this section, we are going to discuss how features are used in the analysis of segments of a language. On the matrix, the (+) means that the segment possess the feature and the (-) signifies absence of the feature.

In the matrices the feature values for a given segment are the ones which should be used together with their respective names of features to refer to the segment because all the others are redundant. For instance, if we want to refer to \*/a/, it is not necessary to use all the features chosen but all is needed is one feature, [+high], since in PB only \*/a/ is [+1high].

What this means is that PB there is a redundancy rule saying that if a segment is [+1high], then it is also [-cons, +son, +syll, \_nas +back, -cor, +voice, -4high, -3high, -2 high]. Such a redundancy rule is formulated as follows:

[+1 high]

[-cons, +son, + syll, -nas, -ant, +back, -cor, +vce, -high, -4 high, -3 high, -2 high]

A further characteristic of the feature system is that vowels, semi-vowels and consonants can be described using the same terms, that is, the same features as shown below:

**Table: Bemba phonetic matrix**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | I | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | b | β | T | d | f | s | tʃ | ʃ | k | g | L |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | - | - | - | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | + | + | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | - | + | + | - | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | - |
| Lab | - | - | - | + | + | + | - | + | - | - | - | + | + | + | - | - | + | - | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | - | - | - | - | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | + | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

If you look at the above matrix, you will realise that;

1. no two segments have exactly the same description (they differ in at least one respect); and
2. no feature is redundant (each feature is necessary to distinguish at least two segments.

**Bemba phonemic chart**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | I | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | β | t | f | s | tʃ | ʃ | k | g | l |
| Cons | - | - | - | - | - | - | - | + | + | + |  | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | + | + | - | + | + | - | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | + |
| Lab | - | - | - | + | + | + | - | + | - | - | - | + | + | - | + | - | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | - | - | - | - | - | - | - | + | - |
| High | + | - | - | - | + | + | + | - | - | - | + | - | + | - | - | - | + | - | + | + | + |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Can you notice the difference between the phonetic and phonemic matrices above? Look at the phonemes represented in the phonemic matrix. Are they the same as those in the phonetic matrix? All the phonemes that were not presented in the phonemic chart are not presented in the phonemic matrix. The phonemic matrix presents only the segments that are distinctive. For instance, [b] is not distinctive although it is a sound that can be heard in the language. It only occurs before a nasal [m].

There are instances when a segment can be described by using minimal features. The rest of the features would be considered redundant. When we do this, we would be applying the principle of economy. The following is a minimally specified phonemic matrix for Bemba phonemes.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | I | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | β |  | t | d | f | s | tʃ | ʃ | k | g |
| Cons | - | - |  | - | - | - | - |  |  |  |  |  | + |  | + | + | + | + | + | + | + | + |
| Voc | + | + |  | + | + | - | - |  |  |  |  |  | - |  | - | - | - | - | - | - | - | - |
| Nas |  |  |  |  |  |  |  | + | + | + | - | - | - |  | - | - | - | - | - | - | - | - |
| Cont |  |  |  |  |  |  |  |  |  |  |  | - | + |  | + | + | + | + | - | - | - | - |
| Ant |  |  |  |  |  | - | - | + |  | - | - | + | + |  | + | + | - | + | + | - | - | - |
| Cor |  |  |  |  |  | - |  |  |  |  | - | - | - |  | - | - | - | - | + | - | - | - |
| Del |  |  |  |  |  |  |  |  |  |  |  |  | - |  | - | - | - | - | - | - | + | + |
| Lab |  |  |  |  |  |  |  | + | - |  |  |  | - |  | - | + | - | - | - | - | - | + |
| Back | - | - |  | + | + | + | - |  | - | - | + | - | + |  | - | - | - | - | + | - | + | + |
| Vce |  |  |  |  |  |  |  |  | + |  |  | - | - |  | - | - | - | - | - | - | - | - |
| High | + |  |  |  | + |  |  |  | - |  |  | - | - |  | - | - | - | - | - | - | - | - |
| Mid |  | + |  | + |  |  |  |  | - |  |  | - | - |  |  |  |  |  |  |  |  |  |
| Low |  |  | + |  |  |  |  |  | - |  |  | - |  |  |  |  |  |  |  |  |  |  |

Let us now look at the following Kaonde matrix. You can use this data to compare phonemes in your language with those in this language, and other languages presented after Kaonde.

The matrix in the following table and the ones after this only gives the phonetic representation of Kaonde phonemes. You will be required to give the phonemic charts (fully and minimally specified) of each of these languages.

Table: Fully specified phonetic Kaonde matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | b | β | t | d | r | f | s | z | tʃ | dʒ | ʃ | ʒ | k | g | l |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | + | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | + | - | + | - | - | - | + | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | + | + | + | + | - | - | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | + | - | + | + | + | + | - | + | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | + | - | - | + | - | + | - | + | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | - | - | + | + | - | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | + | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - |

Table: Fully specified phonetic Lunda matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | b | β | t | d | h | r | f | v | s | z | tʃ | dʒ | ʃ | ʒ | k |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - | - | - |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | + | + | \_ | - | + | - | - | - | + | - |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | - | + | + | + | + | + | - | - | - | - | - |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | - | + | - | - | + | + | + | + | - | + | - |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | - | + | - | + | - | + | - | + | - | + | - |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | + |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | + | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |

Table: Fully specified phonetic Luvale matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | j | m | n | ᶮ | P | b | β | t | d | h | f | v | s | z | tʃ | dʒ | ʃ | ʒ | k | g | l |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | + | + | + | + | + | \_ | - | + | - | - | - | + | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | + | + | + | + | + | - | + | + | + | + | - | - | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | + | + | - | - | - | + | + | + | + | - | + | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | - | - | + | - | + | - | + | - | + | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - |

Table: Fully specified phonetic Nyanja matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | y | m | N | ᶮ | Ŋ | p | b | β | t | d | r | f | v | s | z | tʃ | dʒ | ʃ | ʒ | k | g | l |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | + | - | - | + | - | - | - | + | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | + | + | + | + | + | - | - | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | + | - | - | + | + | + | + | - | + | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | + | - | + | - | + | - | + | - | + | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | - | - | - | + | + | - | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | + | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - |

Table: Fully specified phonetic Tonga matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | y | m | n | ᶮ | ŋ | p | b | β | t | d | f | v | s | z | tʃ | dʒ | ʃ | ʒ | h | k | g | L |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | \_ | - | + | - | - | - | + | + | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | + | + | + | + | - | - | - | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | - | - | + | + | + | + | - | + | - | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | - | + | - | + | - | + | - | + | - | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | - | - | + | + | - | - | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | + | - | - | - |

Table: Fully specified phonetic Lozi matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | i | e | a | o | u | w | y | m | n | ᶮ | Ŋ | p | b | β | t | d | f | s | z | tʃ | dʒ | ʃ | h | k | g | l |
| Cons | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Voc | + | + | + | + | + | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + |
| Nas | - | - | - | - | - | - | - | + | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cont | + | + | + | + | + | + | + | - | - | - | - | - | - | + | + | + | + | - | + | - | - | - | + | - | - | + |
| Ant | - | - | - | - | - | - | - | + | + | - | - | + | + | + | + | + | + | + | + | - | - | - | - | - | - | + |
| Cor | - | - | - | - | - | - | - | - | + | + | - | - | - | - | + | + | - | + | + | + | + | - | - | - | - | + |
| Del | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - | - | - |
| Back | - | - | + | + | + | + | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | + | + | + | - |
| Vce | + | + | + | + | + | + | + | + | + | + | + | - | + | + | - | + | - | - | + | - | + | - | - | - | + | + |
| High | + | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - | - | - | - | + | + | - | - | + | + | - |
| Mid | - | + | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - |
| Low | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - |

You have now seen that all phonemes have different features by which they can be described. Check the matrix again and see if there is one phoneme that has been presented the same in all respects.

**Activity 2.1**

1. Describe all the phonemes of each of the Zambian language presented in this unit.
2. Following the model presented for Bemba, produce phonemic matrices of the six Zambian languages.
3. With examples in an appropriate Zambian language, discuss the concept of aspiration.
4. Produce a feature matrix for the aspirated sounds present in some Zambian languages.

**Summary**

This unit has provided you with the knowledge of the features of basically the seven Zambian languages. In our discussion of these, we have used the features used in the discussion of Proto-Bantu, the ancestor language. We have indicated that no single segment has the same features in all aspects.

**UNIT 3**

**PHONOLOGICAL RULES IN SOME BANTU LANGUAGES**

3.0 Introduction

In the study of language as it is spoken at a given time (synchronic phonology), we are able to distinguish between allophonic rules and morpho-phonological rules. Allophonic rules are those that account for the sound variants of a particular language (phonetic realization of phonemes) while morpho-phonological rules account for the variants of sounds at phonology-morphology interface (including phonological realization at word boundary). This unit will deal with some of the allophonic rules in some Bantu languages, basically Zambian languages.

Learning Outcomes

By the end of the unit, are expected to;

* account for and exemplify from the seven regional languages of Zambia allophonic rules operating on vowels.
* account for and exemplify allophonic rules operating on some consonants in some seven regional Zambian languages.
* interpret some allophonic notations.

**3.1 Allophonic rules in some Zambian Languages**

Let us begin by reminding you about what a phoneme is. A phoneme is a **set** of allophones or individual non-contrastive speech segments. Allophones are sounds, whilst a phoneme is a set of such sounds.

Allophones are usually relatively similar sounds which are **mutually exclusive or are in complementary distribution.** The complementary distribution of two phonemes means that the two phonemes can never be found in the same environment. If two sounds are phonetically similar and they are in complementary distribution, then they can be assumed to be allophones of the same phoneme.

An allophone is basically a phonetic variant or different realization of a phoneme, as in the earlier example we gave involving the phoneme /b/. We stated that this phoneme /b/ has two phonetic realizations, that is, a stop [b] when preceded by a nasal [m] or as a fricative [β] elsewhere. By now you have known that a phoneme can have more than two variants. In chiTonga for instance, the same phoneme discussed here has [b] as in bbala ‘word’. You can note here that while the earlier discussed stop is initiated by the homorganic nasal, this one is not. Hence, giving us three variants of /b/. Yule (1997:55) says that an allophone is “a set of phones, all of which are versions of one phoneme…”

Allophonic rules are, therefore, phonological rules that account for the phonetic realisation of phonemes in a given language. We will discuss the allophonic rules operating on vowels as well as those operating on consonants.

**3.1.1 Some allophonic rules operating on vowels**

Here, we will look at three of the allophonic rules applying on vowels. These are:

1. vowel lengthening before nasal complexes;
2. vowel lengthening after a semi-vowel in Bemba; and
3. vowel lengthening after a consonant + semi-vowel.

**a. Vowel lengthening before a nasal complex**

V → [+long] / ⎯ [+nas] [+cons].

(V is vowel, +long means lengthened or becomes long, [+nas] means a nasal consonant and +cons means consonant (the two [+nas] and [+cons] form a nasal complex or cluster)

This rule has a condition which has to be met if the rule has to apply. The condition is that the vowel to be lengthened should be word-internally.

The rule states that before a nasal complex, i.e. a pre-nasalized consonant (such as mp, mb, nt, nd, ng…), a vowel is always long unless it is word-final.

This rule is found among the following seven Zambian regional languages,:

* Bemba,
* Tonga,
* Kaonde; and
* Lunda.

(Vowel length in phonetic transcriptions is indicated according to the International Phonetic Alphabet, i.e. by a colon after the vowel symbol.)

**Examples**:

1. Bemba

a. ukutinta /ukútíntá/ [ùkútí:ntá] ‘to pull

b. umuntu /umúntú/ [ùmú:ntú] ‘person’

c. buntungwa/buntúngwa/ [bu:ntú:nga] ‘freedom’

2. Kaonde

a. musango /musango/ [mùsà:ngò] ‘kind, sort’

c. kutamba /kútamβa/ [kútà:mbà] ‘to admire, to watch (film etc)

3. Lunda

a. kulanda /kulanda/ [kùlà:ndà] ‘to buy’

b. mumbanda /mumbada/ [m‘u:mbà:ndà] ‘woman’

As stated above, the rule does not apply word-finally (at the end of a word). Thus in the Bemba phrase **abantu nga bakeese** ‘if the people will come’ the **u** of abantu is short although it precedes a nasal complex.

**b. Vowel lengthening after a semi-vowel**

V → [+long] / [ -voc, -cons] \_\_\_\_

([-voc, -cons] is a semi-vowel)

Condition: word-internally

The rule states that after a semi-vowel, a vowel is always long unless it is word-final.

Among the seven Zambian regional languages, this rule applies only to Bemba

Examples:

4. Bemba

a. ukuwama /ukúwámá/ [uúkúwá:má] ‘to be/become good/beautiful’

b. yama /jáma/ [já:mà] ‘maternal uncle’

c. ukulyalyalya /úkulyályályá/ [úkùljá:ljá:ljá] ‘to eat often/anyhow’

As you can see, the last lya in (4c) is short because it is word-final.

**c. Vowel lengthening after a consonant plus semi-vowel**

While in Bemba vowels are always long after a semi-vowel (that is not word-final), in Kaonde and Lunda, among the seven regional Zambian languages, for the vowel to be long after a semi-vowel, the semi-vowel must be preceded by a consonant (although in kiKaonde, this further requires investigation as we can have kyawama/ kyawamisha ‘it is good/ it is very good’. The rule can, therefore, be formulated as follows in these languages:

V → [+long] / [+cons] [ -voc, -cons] \_\_\_\_

Condition: word-internally

The rule states that after a consonant + semi-vowel, a vowel is always long provided it is word-internally.

As pointed out above, among the seven regional Zambian languages, this rule applies to Kaonde and Lunda. Look at the examples and

5. Kaonde

* 1. kukelwa /kúkelwa [kúkè:lwà] ‘to be late
  2. kupwisha /kúpwisja/ [kúpwì:ʃà] ‘to finish (something)
  3. kupwilikisha /kúpwilikisja/ => [kúpwi:líkiʃa] ‘to finish completely’

6. Lunda

a. kwimba /kwimba/ [kwì:mba] ‘to dig

b mwanindi /mwaníndi/ [mwà:ní:ndì] ‘his/her child’

**d. Vowel Lengthening before /ŋ/ in Lunda**

In Lunda all non-word-final vowels are long before the velar nasal, / ŋ /, as shown in (7), below:

**7.** mulong’a /muloŋa/ => [mulo: ŋa] ‘cause case’

**3.1.2 Some allophonic rules operating on consonants**

The following allophonic variations are considered:

1. The phonetic realization of /l/ in Bemba, Lozi and Luvale;
2. The phonetic realization of /r/ in Kaonde;
3. The phonetic realization of /β/ in Bemba, Kaonde and Lozi;
4. The phonetic realization of /s/ in Bemba and, Kaonde and of /z/ in Kaonde.

**a. Phonetic Realization of /l/ in Bemba, Lozi and Luvale**

In all these languages, the lateral phoneme /l/ has two allophones, as follows:

* [d] When pre-nasalized and;
* /l/ elsewhere.

We can then generalise that [nd] is the realization of /nl/ as indicated in the examples below:

8. Bemba:

a. ukulanda /ukulanla/ → [ukula:nda] ‘to speak, to say’

b. ndaleeta /nlaleeta/ → [nda:le:ta] ‘I bring’

c. ndeete /nleete/ → [nde:te] ‘I should bring’

9. Lozi

a. Lubinda /luβinla/ → [luβinda] ‘Lubinda’ (proper noun)

b. ndate /nlate/ → [ndate] ‘my father’

c. bunde /βunle/ → [βunde] ‘beaauty’

10. Luvale

a. mutondo /mtonlo/ → [muto:ndo] ‘tree’

b. ndongo /nloŋgo/ → [ndo:ŋgo] ‘needle’

**b. Phonetic realization of /r/ in Kaonde**

In Kaonde, the flap, noted /r/ in this module, is realized as follows:

* [d] when prenasalized and not followed by /i/ or /j/ (**j** is the IPA symbol for the sound symbolized by **y** in the English word **yes**);
* [dʒ] before /i/ or /j/ (**j** is the IPA symbol for the sound represented by ***y*** in the English word **yes**); and
* [r] elsewhere.:

**Examples:**

11. Kaonde

a. kutala /kútara/ → [kutala] ‘to look’

b. ntajilo /ntariro/ → [ntadʒiro] ‘way of looking’

c. kuulu /kuuru/ → [ku:ru] ‘leg’

d. kujima /kurima/ → [kudʒima] ‘to cultivate

`e. kuja /kurja/ → [kudʒa] ‘to eat’

What you might have realized is that ‘after doing its job’ the semi-vowel (/j/) is deleted. Analyse example (11e) again.

**c. Phonetic realization of /β/ in Bemba, Kaonde and Lozi**

In all these languages, the phoneme /b/ has two allophones, as follows:

* [b] When pre-nasalized and /β/ elsewhere.

What this means, is that [mb] is the realization of /mβ/.

**Examples** (tones not marked):

12. Bemba:

a. ukubumba /ukuβumβa/ → [ukuβu:mba] ‘to mould, to create’

b. bemba /bemβa/ → [βe:mba] ‘lake, sea, ocean’

13. Kaonde

a. kubumba /kubumβa/ → [kuβu:mba] ‘to mould, to create’

b. boowa /boowa/ → [βo:wa] ‘mushroom’

c. kulomba /kuromβa/ → [kulo:mba] ‘to ask for’

14. Lozi

a. bumba /βumβa/ → [βumba] ‘sterility in women’

b. batu /βatu/ → [βatu] ‘person’

c. kubomba /kuβomβa/ → [kuβomba] ‘to be exhausted’

**d.** **Phonetic realization of /ʃ/ in Bemba and Kaonde and of /ʒ/ in Kaonde**

The phoneme /s/ in Bemba and Kaonde is realized as follows:

* [ʃ] before /i/ or /j/ (**j** is the IPA symbol for the sound symbolized by ‘**y’** in the Nyanja word **yanga** ‘mine’), and in the latter case the /j/ is deleted ‘after doing its job’; and
* [s] elsewhere. The following examples depict this phenomenon.

15. Bemba

a. insenshi /insensi/ → /i:se:nʃi] a kind of a big rat

b. ukusosa /ukusosa/ → [ukusosa] ‘to say’

c. ukusosha /ukusosja/ → [ukusoʃa] ‘to speak to, to cause to say’

d. umusha /umusya/ → [umuʒa] ‘slave

16. Kaonde

a. kusala /kusara/ → [kusara] ‘to choose’

b. lukasu /lukasu/ → [rukasu] ‘hoe’

c. kushiika /kusiika/ → [kuʃi:ka] ‘to bury’

d. kulasa /kurasa/ → [kurasa] ‘to vomit’

e. kulashila /kurasila/ → [kuràʃìrà] ‘to vomit for’

f. kusha ‘kusya/ → [kuʃa] ‘to leave’

g. kushaala /kusyaala/ → [kuʃa:ra] ‘to stay, to remain’

**e. The phonetic realization of /z/ in Kaonde**

In Kaonde there is a parallel between the realization of /s/ and that of /z/. This phoneme is realized as:

* [ʒ] before /i/ or /j/, (in the latter case the /j/ being deleted ‘after doing its job’); and
* [z] elsewhere.

The following examples will help you conceptualise the phenomenon.

17. Kaonde

a. nzala /nzala/ → [nzala] ‘hunger’

b. nzubo /nzuβo/ → [nzuβo] ‘house’

b. muzhi /muzi/ → [mùʒi] ‘village’

c. kuzwama /kuzwama/ → [kuzwa:ma] ‘to be greedy’

d. muzhaazhi /muzyazi/ → [muʒa:ʒi] ‘root’

e. muzha /muzya/ → [muʒa] ‘slave’

(LAL 311 Lecture notes)

**Observations on some of the rules discussed**

Let us now discuss briefly some observations made on the rules provided above. Look back before you proceed. What observation have you made?

Well. When a fricative is realized by a stop, as in the case of /β/ and /l/, this is an instance of **fortition**. The term fortition means ‘becoming hard’ or ‘becoming harder’. This is what happens, for instance, when a fricative is realized by a stop. The opposite of fortition is **lenition** (which means ‘weakening’). This phenomenon is also called **stopping**.

When /s/ is realized by [ʃ], or when /z/ is realized by [ʒ], this is an instance of palatalization; a process where a non-palatal becomes a palatal or post-alveolar). Can you also recall the processes of fricativisation and lateralization?

The other phenomenon that can be observed above is downdrift. In your study of the structure of Bantu, we discussed the concept ‘downdrift’. Can you explain what this is? Yes. In many tonal languages, after a low tone or series of low tones, a high or a series of high tones is realised by a high tone or series of high tones lower than the high tone preceding low tones but higher than the low tones. In simpler terms, we can say that a high tone or series of high tones is realised by a mid-tone or series of mid tones after a low or series of low tones. We can use the following notation to represent this phenomenon:

Hn  Mn/Hn Ln

The effect of downdrift on an utterance as a whole is that when high tones downdrift, there is an overall gradual descent of tones throughout an intonation unit, Crystal, 1991:113). Read also (Carter, 2002).

**Activity 3.1**

|  |
| --- |
| 1. Provide three allophonic rules applying on vowels in any Zambian language of your choice. 2. With examples, explain the following terms:    1. stopping    2. fortition    3. downdrift    4. palatalization. 3. With examples, explain any three of the allophonic rules applying on consonants.   **Summary**  This unit has discussed some of the allophonic rules that apply on both consonants and vowels in some of the Bantu languages, particularly, Zambian languages. It has also brought forth the concepts of fortition and lenition. Under this category, the concept of vowel lengthening differs from that which saves to distinguish one lexical item from another. |

**UNIT 4**

**SYLLABLE STRUCTURE OF BANTU**

4.0 Introduction

Let us revisit syllable structure. Syllable structure is part of phonotactics. However, the term ‘phonotactics’ is also used to refer to the study of the way phonemes, especially segmental phonemes, stand relative to one another. Because these constraints operate on units larger than the single segment, (the phoneme), we have to consider the basic structure of that larger phonological unit, the syllable. In this course, you will be required to distinguish between Bantu and English language syllable structure.

Learning Outcomes

By the end of this unit, you are expected to;

* interpret the symbols used in the study of syllables.
* explain what phonotactics is.
* explain the difference between open and closed syllables.
* distinguish the characteristics of English and Zambian languages syllables.

**4.1 Syllable structure**

In discussing syllable structure, the following symbols and abbreviations are used:

w = word

σ = syllable

On = onset

Rh = rhyme

Nu = nucleus

Cd = coda

N = nasal

C = consonant (including nasal)

V = vowel

S = semi-vowel

Although you are very familiar with syllable symbols, you are required to accurately interpret these. Well! Minimally, each syllable comprises a nucleus (**Nu**). The nucleus of a syllable is the most prominent segment in the sense that it is the most sonorous segment in a syllable. In general, the Nu is a V, each V is a Nu and, in general, in a word or any utterance there are as many syllables as there are vowels. Within the same syllable, whatever precedes the Nu is the onset (**On)** and whatever follows it is the Coda (**Cd)**. The set of the **Nu + Cd** is called the Rhyme **(Rh**). For example, in the word cat, [k] is an onset, [a] the nucleus and [t] a coda. Note that some scholarly works use ‘rime’ instead of ‘rhyme’.

**4.2 Types of syllable and syllable structures**

There are two types of syllable namely **closed** and **open** syllables. Closed syllable structure is one in which a syllable ends in a coda, usually a consonant, where as an open syllable structure is one in which a syllable ends in a nucleus, usually a vowel. The English language has both types of structures, that is, open and closed types. Most Bantu languages, however, have open type of syllable structure.

In a language like English, where a syllable may be closed, i.e. may have a Cd, the syllable structure may be accounted for by the following pair of rules:

(1) a. σ → (On) Rh

b. Rh → Nu (Cd)

The pair of rules in (1) specifically states that each syllable must have at least a nucleus (Nu). In 1(a) a syllable is said to be made up of optionally an onset and obligatorily, a rhyme. In 1(b), the Rh is specifically made up of a Nu and optionally a Cd. In English, a Nu is a V (vowel). Hence: Nu → V; for instance, unfit. In this word, we have two syllables, namely un and fit. We begin our work of dividing the word into syllables with the letter standing for word and go on to the various branches until we exhaust all the units as the tree diagram below illustrates.

2. a. Unfit

W

σ σ

Rh On Rh

Nu Cd Nu Cd

V C C V C

u n f i t

1. **Cobra**

W

σ σ

On Rh On Rh

Nu Nu

C V C C V

c o b r a

In (2a) above, both examples have the two syllables, although all have different structures. These are VC and CVC in (2a), and CV and CCV structures (in that order) which are both open syllables. The Rh slot therefore is not necessary.

In most Bantu languages, all syllables are **open** (they end in Nu). Consequently, (except in the case of syllabic consonants where the concept of ‘rhyme’ is considered redundant) in such languages the following rule would suffice:

σ → (On) Nu.

This implies that a syllable is made up, optionally, of an Onset (On) and obligatorily, a nucleus (Nu).

For all Zambian languages, as is the case for those Bantu languages which (a) do not allow closed syllables, (b) allow only two-consonant sequences and (c) allow syllabic nasals, we may summarize the situation as follows: W symbolizes ‘word’, σ ‘syllable’, On ‘onset’; Nu ‘nucleus’, C ‘consonant’, S ‘semi-vowel’, V ‘vowel’ and N ‘syllabic nasal’).

**4.3 Syllable rules in Zambian languages**

a w → σn

b. σ → (On) Nu

c. On → (C1) (C2) (S)

d. Nu → {V, N}

We read the rules as follows:

(a) A word constitutes a number of syllable. (b) The syllable has an optional Onset and an obligatory nucleus. (c) The Onset can have a cluster of consonants and a semi-vowel. (d) The nucleus can be either a vowel (V) or a syllabic nasal (N).

**4.4 Order of consonant clusters in the Onset**

You are well vest with the composition of syllables of words in most Bantu languages and indeed of any Zambian language. Do you recall that in Zambian languages, there are syllables that have more than one consonant in the Onset? What do you call such kind of consonants? Yes! Consonant clusters, as indicated in (c) above. Now, collect as many syllables as possible in a Zambian language of your choice and analyse the order of consonants in the Onset. What are your findings?

What you might have come up with are the following;

1. When you have two consonants, the first consonant is always a nasal. Hence in the sequence, C1C2, C1 is always a nasal.
2. You can have a nasal, followed by a consonant proper then a semi-vowel (NCS) in the Onset.
3. You can also have a consonant and semi-vowel in the Onset.
4. A consonant can form a syllable in some languages such as Cinyanja.

Note that the C1C2 can be presented as CC or NS. Can you now give examples of these syllable structures in a local language?

**4.5 Syllable segmentation and tree diagrams**

You must have realized that syllable segmentation in Bantu languages such as the Zambian languages is easier than that of English Language. Do you know why? Yes! It is because all the syllables are open as opposed to English that has both open and closed syllables. This means that the syllable in Zambian languages is marked by a vowel which is the nucleus. Note that a dot is used to segment words into syllables, eg. m.te.ngo ‘tree/price’ in ciNyanja. The following tree diagrams will help you deal with syllable segmentation:

3. Nyanja:

a. mtengo ‘price/ tree’

W

* σ σ

Nu On Nu On Nu

N C V N C V

m t e n g o

b. atate ‘father’

W

σ σ σ

Nu On Nu On Nu

V C V C V

a t a t e

4. Tonga

búlongo ‘soil’ W

σ σ σ

On Nu On Nu On Nu

C V C V N C V

b u l o n g o

5. Bemba

iyesu ‘ours’

W

σ σ σ

Nu On Nu On Nu

V S V C V

i y e s u

From the foregoing, we can note the following:

* There are various syllable structure such as V, CV, NCSV, SV in Zambian languages.
* A syllabic nasal always bears a tone (only high or low, not a contour tone).
* Only a word-initial nasal preceding a consonant (such as mb, mt as in the words *mbale* ‘relative’and *mtengo*’tree’in Cinyanja) is syllabic.
* In ‘**ng**’ of mtengo, the **n** is actually a velar nasal /ŋ/ => m.te.ƞgo.
* A semi-vowel does function as the Onset of a syllable.

**Activity 4.1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Name the two syllable structures and give examples for each. 2. Draw two diagrams for two words with their syllable structure represented. 3. Distinguish between the syllable structure of the English language and any Zambian language of your choice? 4. Provide three rules that account for the structure of syllables of Zambian languages.   **Summary**  This unit has discussed the notion of phonotactics, the constraint on the sequence or order of phonemes in a language. We have basically considered the syllable as an area where phonotactics can be applied. Some phonemes do not occur together and we have clearly indicated that the native speaker of a language has prior knowledge of these sound systems.  The unit has also covered syllable types and syllable structures in both English and Zambian languages. It has been noted that syllable ii Zambian languages are easier to segment as compared to a number of English counterparts. UNIT 5MORPHOLOGICAL ASPECTS OF A BANTU LANGAUGE5.0 Introduction In the previous course in African Languages and Linguistics, under the morphological aspects, we discussed the structure of Bantu languages, focusing on the structure of all the word classes, exemplifying from accessible data of the Bantu languages. We dealt much on the formation of these word classes. The course also dealt with the terms used in Bantu Linguistics and semantics of the prefixes were well discussed. We are going to briefly look at some of these aspects before we go into the discussion of the content of this module. Learning Outcomes By the end of this unit, you are expected to;   * define with examples the Bantu word classes. * distinguish between variable and invariable * explain vividly the terms used in Bantu linguistics  5.1 Variable and invariable forms Do you remember what is meant by the terms variable and invariable forms? Yes. These are categories of word classes. The invariable forms are categories that cannot be inflected while variable forms can be inflected. Can you make two lists of word classes into these categories? Give examples for each in your local language.  Variable forms can be inflected. Here we have word classes such as nouns, verbs, adjectives and adverbs. Invariable forms cannot be inflected. These include:   1. conjunctions, eg. Bemba: na ‘and’, 2. interjections, eg. Kaonde: Ma! 3. some pronouns, eg. Nyanja: ine ‘I’ and 4. ideophones, eg Tonga mbi ‘pitch black’.  5.2 Bantu word classes   **Reflection**  Can you reflect on what you covered in ELE/ALL 1201? What are word classes? Discuss your answer with one of the students on this course. Have you ever realised that all the words that you use in speech can be fitted in their respective classes? Construct any meaningful sentence and try to fit-in all the words into respective classes. Discuss your classification with your colleague.  In modern linguistics, what was called parts of speech are called word classes. As a starting point on this topic, we are going to look at a list of some of the word classes that exist in Bantu languages. Note that some word classes are universal, in that they are found in all human natural languages while others are language specific. Universal parts of speech include **nouns, verbs, adjectives, adverbs, pronouns, conjunctions** and **interjections** and those that are not universal include, among others, **articles** and **idiophones**. As you work through this section, you are advised to provide examples in your language.  Word classes can be categorised into two types; variable and invariable ones.  Before you proceed, can you explain what variable and invariable forms are? Get back to the list above and categorise the 18 word classes into the two categories. 5.2.1 Variable Word Classes In Bantu, variable forms comprise nouns, adjectives, personal pronouns, demonstratives, numerals, genitive pronouns, possessives, some indefinite pronouns, relative pronouns and verbs. They are termed variable because they can be inflected. For instance, nouns inflect for number while verbs inflect for tense. 5.2.2 Invariable Word Classes Words that cannot be inflected at all are called ‘invariable’ forms. The invariable group comprises prepositions, conjunctions, interjections, onomatopoeias, idiophones and particles. Can you briefly explain each of these using meaning category?  Here are some examples of Bantu word classes:  1. Nouns  Tonga: muntu ‘person’ bantu ‘people’  mwana ‘child’ bana ‘children’  2. Adjectives  Tonga: mubotu ‘good’ (e.g. muntu mubotu ‘good person’)  babotu ‘good’ (e.g. bantu babotu ‘good people’)  3. Personal pronoun  Lozi: na ‘I / me’  bona ‘them’  4. Demonstration  Bemba: aba ‘these’ (e.g. aba abantu ‘these people’)  5. Numeral  Tonga: omwe ‘one’ (e.g. muntu omwe ‘one person’)  comwe ‘one’ (e.g. cintu comwe ‘one thing’)  botatwe ‘three’ (e.g. bantu botatwe ‘three people’)  zyotatwe ‘three’ (e.g. zyintu zyotatwe ‘three things’)  6. Genitive Pronoun  Tonga: lya ‘of’ (e.g. bbuku lya mwana ‘the book of the child’)  wa ‘of’ (e.g. munzi wa mwana ‘the village of the child’)  7. Possessive pronoun  Tonga: wabo ‘their’ (e.g. munzi wabo ‘their village’)  lyangu ‘my’ (e.g. bbuku lyangu ‘my book’)  8. Indefinite pronoun  Bemba: cila ‘each / every’ (e.g. cila muntu ‘each/every person  9. Relative pronoun  Tonga: ngu ‘who / which’ (e.g. muntu ngu tuyanda ‘the person whom we want’)  mbo ‘who / which’ (e.g. bantu mbo tuyanda ‘the people whom we want’)  10. Question word (e.g. words for ‘Who?’, ‘What?’ ‘ Where?’)  Tonga: -ni, -nzi, -li  11. Preposition  Bemba: na ‘with’ (e.g. ali na Peter ‘he is with Peter’)  12. Conjunction  Bemba: na ‘and’ (e.g. John na Peter ‘John and Peter’)  nga ‘if’ (e.g. nga baaisa ‘if they come’)  13. Adverb  Lunda: nankashi ‘very much’  14. Interjection  Tonga: acuu! (expressing pain)  15. Onomatopoeia - a word imitating a natural sound but which is not a noun in Bantu)  Bemba: pa (e.g. aamuuma na pa ‘he hit him making the noise pa)  16. Idiophone - word to emphasize some idea such as quality)  Tonga: bu ‘idiophone of whiteness’  17. Verb  Luvale: Tunakwiza ‘we are coming’  18. Particle  Some words, whose syllable structure is characterized by the fact that they are all monosyllabic, do not fall, both structurally and functionally in any of the above word classes. The term ‘particle’ is used in this course. Particles include enclitics, words for ‘it is’ and ‘it is not’ in some languages, etc, e.g. ni ‘it is’ and tee ‘it is not’ in Bemba, ki ‘it is’ in Lozi, ndi ‘it is’ in Nyanja and ngu ‘it is’ in Tonga.  You need to explore the form and function of these word classes in a Bantu language familiar to you.  **Activity 5.1**   1. Name and exemplify all word classes in Bantu. 2. Distinguish between variable and invariable forms. 3. What are the functions of various particles in your language?   In this section, we are going to concentrate on nouns and other related nominals, the variable forms. Most nouns in Bantu languages have the structure Prefix + Stem. Some languages such as Bemba, Nkore and Tonga have the structure Augment + Prefix + Stem while some nouns take a zero prefix. The augments take different forms depending on the language. Bemba augments, for instance, are determined by the vowel of prefix of the noun, using the copy rule. However, classes 9 and 10 which do not have vowels in the prefix, no augment is expected. You should also be aware that a noun with a zero prefix will also have a zero augment.  In Tonga, there is a common augment ‘i', which is just used for emphasis. This augment is an invariable form. In some languages such as Bemba, an augment does not carry any meaning but is essential in the construction of the nouns.  I hope you have by now conceptualised the noun prefixes of your own language and a few of those of other related languages. You should be able to recall that nominal classes in Bantu range from 10 to 20 classes. For the Zambian languages, Nyanja has 11 and Silozi 20 and the rest of the languages have 18. Classes 16 to 18 are locatives and these have two forms; the shorter and the longer forms.  Some prefixes such as Classes 1, 3 and 18; Classes 15 and 17; Classes 9 and 10 are identical. How would you distinguish each of these? Well. You can use agreement and meaning. Context can also help in determining which class the word belong.  One other aspect to consider is the variants in Class 5. In some languages, there are three variants; li-, i- and Ø prefixes.  The semantics of the classes are distinct. Class 1 and 2 for human beings and personified animals in folktales, and in some languages such as Tonga, large animals and birds. Classes 3 and 4 for inanimate things. Classes 5 and 6 are used mostly for miscellaneous things. Classes 7 and 8 for artifacts. Classes 9 and 10 are generally for nasalised animals, reptiles and birds. Class 11 is generally for abstract and some objects. Class 12 and 13 is for small specimen. Class 14 for abstract and uncountable nouns. Class 15 is for infinitives as well as some body parts. Classes 16, 17 and 18 are locatives. Classes 19 and 20 in Lozi are for large specimen. Most of these classes exist in pairs of singular and plural. Read also Kashoki’s editorial series of outline grammars of iciBemba, chiTonga, ciNyanja, siLozi and kiKaonde.  Some classes have secondary use. Classes 7 and 8 and 19 and 20 in Lozi are used augmentatively or perjoratively; Classes 12 and 13 for diminutives while 14 is for abstractions. A number of nouns can be derived into these classes. 5.3 Morphological inflection and derivation You should be aware that inflection and derivation are the two major word formation processes. These are dealt under the umbrella of affixation. How does inflection differ from derivation? Do they operate the same in Bantu languages as in English? Certainly not. Let us look at each of the two.  **Morphological inflection** is a process of change of form which distinguishes different grammatical forms of some lexical, (Yule, 1987). The major inflectional classes are verbs and nouns. Verbs inflect for tense. A class of verbs will share a pattern of inflection, eg, addition of –aka- in the past in Tonga or –dza- for future tense in Nyanja. Nouns inflect for number (plural) while verbs inflect for tense. Inflection in Bantu is by prefixation (a process by which prefixes are attached to stems and radicals).The inflectional morphemes depend on the prefixes of the noun class of the language. As you may be aware, there is a specific prefix for each noun class.  **Morphological derivation** is the process of forming a new word on the basis of an existing word. It often involves the addition of a morpheme in the form of an affix, usually a suffix such as *-i*, *a-*, and *-elo*. Derivation in Bantu involves suffixation (a process of attaching suffixes to the root). Prefixation is applied if the derived lexeme is a nominal (since all nouns in Bantu have a prefix, whether overt or covert). 5.4 The differences between inflection and derivation What is the difference between inflectional and derivational morphology?  Inflectional morphology is the study of the modification of words to fit into different grammatical contexts whereas derivational morphology is the study of the formation of new words that differ either in syntactic category or in meaning from their bases. Therefore, this is the principle difference between inflectional and derivational morphology. Moreover, in usage, the difference between inflectional and derivational morphology is that the inflectional morphemes are affixes that merely serve as grammatical markers and indicate some grammatical information about a word whereas derivational morphemes are affixes that are capable of either changing the meaning or the grammatical category of the word.  Besides, the key difference between inflectional and derivational morphology is that while inflectional morphemes create new forms of the same word, derivational morphemes create new words, (Yule, 1987).  Derivation stands in contrast to the process of inflection, which means the formation of grammatical variants of the same word, as with *jika* = -jik- ‘cook’ (verb) ==> *mujiki* ‘cook’ (noun) in Tonga or *londa* ‘guard’ (verb) ==> *mulonda* ‘guard’ (noun) in Cinyanja.  Inflectional morphology in Bantu languages, just as in English is highly productive. Inflectional morphology can never change the grammatical category of a word. You can add an inflectional morpheme to a verb, noun, adjective, or an adverb and still deal with the same word form but different forms. For example, adding different prefixes such as mu-, ba-, to the stem –ntu in Tonga gives us the different forms of the noun for ‘people’. The change from *muntu* to *bantu* is grammatical. Can you try to add tense morphemes to verbs and see if they change the meaning? Does the verb change the category, for instance to a noun, adjective or adverb? Not at all! The word category remains the same; that is, a verb.  In English, you are aware that adding the inflectional morpheme –s to the verb ‘see’ can make this verb singular. Similarly, adding ‘-ed’ to the verb ‘cook’ creates the past tense of the verb (cooked). There is however a difference between inflection in Bantu and English. Can you state ways in which these differ? You may have thought of the following:   * An inflectional morpheme in English is a suffix that is added to a word to assign a particular grammatical property to that word, such as its number, mood, tense, or possession. * The morphemes in Bantu languages nominals are prefixes which fairly vary from one language to another. * Each prefix is distinct and has meaning. For nominals, prefixes would inflect for number while in verbals form grammatical agreement. * Inflectional morphemes in verbals would inflect for tense. These are normally infixes, and suffixes that mainly express mood and aspect. * In Zambian languages, the tense morphemes are vast. These indicate various categories, eg, two past tenses; hodiernal past (the past of today) and prehodiernal past (the remote past).   Can you also distinguish derivation in Bantu with that of English? You need to discuss this in a tutorial group. It is important to brainstorm on this matter before engaging in a discussion. 5.5 Morphological terms used in Bantu Linguistics This sub-section will deal with Bantu Linguistics morphological terms as used in Guthrie’s Comparative Bantu. Guthrie supplies a list of definitions of a number of grammatical categories that he uses in his study. These grammatical terms are used in the description of Bantu languages and have been used by many linguists working on Bantu languages. It is imperative for you to get acquitted to these terms because they will be used in morphology. Apart from the definitions given by Guthrie, slight modification and examples have been provided so as to ease up understanding of the concepts.  **Concord Prefix**  You are aware of what concord in language is. A concord prefix (often termed ‘prefix’) is any prefixed element that serves to operate the system of grammatical agreement that is characteristic of every Bantu language. When any particular prefix is quoted, it is always followed by a hyphen. Can you think of any of the prefix in your language or a language you know very well that you can qualify as a concord prefix? Yes, all the nominal or noun prefixes are concord prefixes because they serve to operate the system of grammatical agreement. Let us exemplify using a few of the Zambian languages:  Nyanja: **a**nthu abwera ‘people have come’  Lozi: **ba**tu batile ‘people have come’  Tonga: **ba**ntu banji balya kale ‘people many eaten already’  The a- in the Nyanja example and ba- in the Lozi and Tonga examples are concord prefixes.  **Class**  Each distinct type of agreement is termed a class. The number of classes varies from language, but is rarely fewer than ten or more that eighteen. A generalised class prefix is quoted without a hyphen. So we say, ‘Class 1 prefix mu and the mu- in munthu.  Here are some noun class prefixes for the seven regional Zambian languages. Swahili is included to provide a comparison (typical of Proto-Bantu).  (ø = ‘zero’, i.e. ‘nill’)   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Class** | **Bemba** | **Kaonde** | **Lozi** | **Lunda** | **Luvale** | **Nyanja** | **Tonga** | **Swahili** | | 1 | mu | mu | mu | mu | mu | mu | mu | \*mo | | 1a | ø | Ø | ø | ø | ø | ø | ø | \*ø | | 2 | βa | Βa | βa | a | βa | a | βa | ba | | 2a | βaa | βaa | βo | a | βa | a | βa | ? | | 3 | mu | mu | mu | mu | mu | mu | mu | \*mo | | 4 | mi | mi | mi | mi | mi | mi | mi | \*mi | | 5 | li/i | Ji | si | di/i | li | li/dzi | li/i | \*i | | 6 | ma | ma | ma | ma | ma | ma | ma | \*ma | | 7 | ci | ki | si | ci | ci | ci | ci | \*ke | | 8 | fi | vi | li | yi | vi | zi | zi | \*bi | | 9 | n | N | n | n | n | n | n | \*n | | 10 | n | N | li/n | zhi/n | zhi/n | n | n | \*n | | 10a | ø | Ø | li | zhi | zhi | ø | ø | ? | | 11 | lu | Lu | lu | lu | lu |  | lu | \*do | | 12 | ka | Ka | ka | ka | ka | ka | ka | \*ka | | 13 | tu | Tu | tu | tu | tu | ti | tu | \*to | | 14 | βu | Βu | βu | wu | u | u | βu | \*bo | | 15 | ku | Ku | ku | ku | ku | ku | ku | \*ko | | 16 | pa | Pa | fa | ha | pa | pa | a | \*pa |  | | 17 | ku | Ku | kwa | ku | ku | ku | ku | \*ko | | 18 | mu | Mu | mwa | mu | mu | mu | mu | \*mo | | 19 |  |  | si |  |  |  |  | \*pi | | 20 |  |  | βi |  |  |  |  |  |   **Dependent Prefix**  When a series of items differentiated only by an alternation in the concord prefix, and this series can contain an item from each of the classes, then the prefix in such items are termed ‘dependent.’ An element that is that is this way throughout a regular type of series is termed ‘commutable’. For instance, the ba- in batile in is dependent on the prefix of batu.  **Independent Prefix**  When a series of items with commutable prefixes cannot contain an item from each of the classes, but includes a limited number of classes only, then the prefixes in such items are termed ‘independent.’ In most languages there is only one type of independent prefix, but several types of dependent prefix. For example (Bemba), a**ba**ntu abashila pwisha incite bakaya mailo nga bapwisha ifyo bafwiile ukucita. ‘The people that have not finished work will go tomorrow when they finish what they are supposed to do’. The ba- in abantu is an independent prefix. It controls the agreement of the constituents with the dependent prefix in the predicate.  **Independent Nominal**  Any item with an independent prefix is called an ‘independent nominal’, and such items cannot be quoted without the relevant prefix or prefixes. Although this device enables an independent nominal to be identified, it does so without attempting a definition of ‘nominal’. This is satisfactory only within the strictly limited purpose of this study. A substantive noun is an independent nominal. For example (Kaonde), bantu babiji ‘two people’; bantu is an independent nominal. It bears an independent prefix.  **Dependent nominal**  Any item with a dependent prefix that has a grammatical behaviour comparable to that of an independent nominal is called a ‘dependent nominal.’ Since such items can occur in any class, they are suitably quoted without any concord prefix. An adjective, a numeral, demonstrative, to mention a few, are dependent nominals. The numeral ‘-biji’ in the Kaonde example is a dependent nominal. The prefix depends on the independent nominal or prefix.  **Stem**  That part of a nominal that remains after the removal of any concord prefix is termed the ‘stem.’ This means that the dependent nominal is the stem which is quoted, and thus in common with other stems. Such a stem is always preceded by a hyphen. A stem can also be defined as the common feature in a series of nominal with commutable prefixes.  **Augment**  Any element other than a concord prefix that stands before a stem is termed an ‘augment.’ The o- in omuntu’person’ in Ganda is an augment.  **Verbal**  It is purported that the verbal category is not easy to define in a way universally applicable to any Bantu language. In general, verbals may be defined as items with a dependent prefix which are distinguished by the presence of several other recognisable types of element such as dealt with in 10, 11 and 13. The constituent; akondana ‘they like each other’ in Nyanja is a verbal.  **Radical and Extended Radical (Extension)**  All verbals have an irreducible core called a ‘radical.’ When a radical is quoted, it is both preceded and followed by a hyphen. For instance, -kond- carrying the notion of like/ love in Nyanja.  **Types of radicals**  We are going to discuss five types; the simple, adoptive, derived, reduplicated and extended radical. Which among these can you illustrate? You can attempt all. They are self-explanatory.    **Simple radical** is one which consists of a single morpheme.  Tonga: -li- ‘eat’  -pal- ‘scratch’  **Adoptive radicals** are those that are adopted from other languages. They are radicals that are borrowed from other languages, e.g. Lozi: ku – tolok – a ‘to interpret’ from Africaans→tolk  **Derived radicals** are radicals that are formed from constituents of a different word class or word classes. I am sure you can recall the topic on derived nouns.  Tonga: -pyang- ‘sweep’.  **Reduplicated radicals is a** type which uses two identical radicals to form one shape  Nyanja: kudyaka-dyaka ‘stepping everywhere’.  **Extended radicals** consist of the simple, adopted or derived radical as the first constituent followed by a modifier or combination of modifier constituents. The modifying elements are called extensions, (Fortune, 2001).  Kaonde: ku- -fw- -ijil- -a ‘to die completely. -ijil- is the extension morpheme.  Radicals are of many different sizes, and some of the longer ones fall into regular types of series characterised by an alternation of elements at the end of the radical. Radicals containing such elements are said to be ‘extended,’ and the elements themselves are termed ‘extensions,’ Radical of the general pattern CVC are termed ‘simplex’ while those longer radicals that cannot be analysed into a simplex radical and an extension are termed ‘complex.’ As many complex radicals are very similar in their form to extended simplex radicals, that part of a complex radical that corresponds to the simplex part of an extended radical is termed the ‘radical element,’ and the rest is termed an ‘extension element.’ In the Nyanja example given above, -kond- is the radical element while -an- is the extension element. Let us look at some more extension types below. Types of verbal extensionsApplied /Benefactive/ Applicative extension This is the morpheme attached to the verb root to convey the meaning of an activity denoted by the verb ‘being done for’ or on behalf of somebody else. It also indicates the location of an activity.  Tonga: kulimina →ku- -lim- -in- -a ‘cultivate for’.  [ **ku-** is infinitive (INF), **-lim-** is a verb root (VR), -**in**- is applied extension (AEx) and -**a** is verb ending (End).  Chewa: nyem- -**el**- -a ‘to break for’  Lozi: kulimela → ku - -lim- -**el**- - a ‘to cultivate for’  INF VR AEx. End  Tshiluba: mukaji u-sumb-il-a mfumu tshimuma *Applicative*  woman 1-buy-APPL chief fruit  ‘the woman buys fruit for the chief’  It is called benefactive because an activity is carried out for someone else (the beneficiary). Passive extension This denotes an action being done by someone or something to someone or something.  Bemba: ukumwa→ u- -ku- -um- -w- -a ‘to be beaten’  aug. Inf VR PEx end Causative extension The extension morpheme here modifies the verb to mean ‘to cause somebody or making somebody / something to do something.  Nyanja: kumulimitsa →ku- -mu- -lim- -its- -a ’to make him/ her cultivate’ Reversive extension This refers to an action reversed or re-done. Occurs in two types:  *Reversive active*- the verb has a direct object and somebody is involved in the reverse action.  Tonga: kwaanga ‘to tie’→ kwaangulula ‘to untie’  *Reversive stative* – the action denoted by the verb takes place by itself. There is no action by somebody.  Bemba: ukufimba ‘to swell’→ kufimbuluka ‘to unswell’.  ku- -fimb- -uluk- -a Reciprocative extension This is where the action denoted by the verb is done to each other. It occurs with animate subjects and objects only.  Lozi: kuotana →ku-ot-an-a ‘to plait each other’  Tshiluba: baledi ba-nang- angan-a  parents 2-love- REC  ‘parents love each other’ Repetitive extension This denotes an action that is done or is repeated over and over, again and again.  Kaonde: kunembanemba ‘to write over and over/ all over’. Intensive extension This extension expresses the intensity or quickness of an action  Bemba: ukwenda ‘to walk’→ ukwendesha ‘to walk quickly’  ukwishiba ‘to know → ukwishibisha ‘to know very much’ Perfective extension This indicates an action that has been completely done or done thoroughly.  Kaonde: kuyumijila ‘to dry completely’.  kufwijijila ‘to die completely’. Extensive extension The extension denotes the action of the verb which is extended in time or space or is repeated extensively.  Bemba: ukutobaula ‘to break into many pieces (of glass)’. Stative extension –ik- This extension indicates state in which an individual is.  Nyanja: ona ‘look’; mwezi waon-**ek**-a ‘the moon is seen’  (Lehmann, 2002; Fortune, 2001 and Carter, 2002)  **Verbal Morphemes**  We have indeed stated that verbals in Bantu are the most complex of all the word classes. Verbals are made of various morphemes. The following are the major types of verb morphemes in Bantu (appearing in that order):   1. Preprefix 2. Prefix (subject marker/ concord prefix) 3. Post prefix 4. Tense sign (tense marker) 5. Post tense sign 6. Infix (object marker) 7. Radical (root) 8. Extension 9. Pre-ending 10. Ending (suffix) 11. Post ending.   Some linguists use the terms in brackets. We should note that:   1. No verb form contains all the above morphemes; 2. Some of the above morphemes do not occur in certain languages; and 3. Some of the morphemes function differently in different languages.   **Tense sign, Suffix**  Commutable series of elements occurring jointly before and after the radical, or simply in the latter position, are termed ‘tense signs.’ The part of a tense sign that occurs finally is known as a ‘suffix.’ This definition means that among the tense signs will be found elements characteristic of forms known as ‘conditional’ or ‘subjunctive’ in conventional grammatical description. The term ‘tense’ therefore, is not limited to a reference to time.  **Base**  A radical, whether extended or not, together with a suffix is termed a base. It is the fact that a verbal base contains a commutable suffix that distinguishes it from a nominal stem in most cases. In the case of languages that have no suffixes, base and radical are coextensive and both are quoted with an initial hyphen only, (Guthrie, 1967: 13 – 14).  Note also the following:   1. In general linguistics, what is called a ‘radical’ by Guthrie is also called a ‘root.’ 2. Following general linguistics, some Bantuists use the term ‘suffix’ to refer to any affix following a root/ radical. 3. What is called a ‘suffix’ by Guthrie is generally called an ‘ending’.   **Activity 5.2**   1. Explain with examples in any Bantu Language the following terms used in Bantu linguistics: 2. Concord prefix 3. Class 4. Dependent prefix 5. Independent prefix 6. Independent nominal 7. Dependent nominal 8. Stem 9. Augment 10. Verbal 11. Radical 12. Extended radical and extension 13. Tense sign and suffix 14. Base.  5.6 Types of morphemes Let us now look at the types and examples of morphemes. You know very well that a morpheme is an abstract linguistic element in language. Although abstract, it is the smallest meaningful unit of grammatical analysis (the minimal unit that has meaning and serves a grammatical function in a language).   |  | | --- | |  | |  |   There are several different morphemes in language. Basically these are:  **(a) Free morphemes**: morphemes that can meaningfully stand alone. Free morphemes can either be lexical or functional. It is still not clear to whether Bantu languages have free morphemes like English other than the categories in the invariable forms. Both nominals and verbals constitute bound morphemes. We get the meanings of the vast morphemes from their use in a constituent. On their own, they would not give meaning.  **(b) Bound morpheme**: Bound morphemes cannot be uttered alone to give meaning. They have to be attached to free morphemes or other bound morphemes. Most roots and stems in Bantu are bound. Although we are able to get the meanings of the stems -*sankwa* and *-botu* in Tonga to mean ‘boy’, and ‘good’ respectively, the stems essentially requires the prefixes for their complete meanings.  Bound morphemes can further be categorised as either inflectional or derivational.  (c) **Inflectional morphemes** have to do with the grammar of a word. For instance, they change the tense, number and aspect amongst other characteristics of a word. Inflectional morphemes in Bantu are always **prefixes**. These are the same prefixes of the noun class of the respective languages. As nominal prefixes, they control the grammatical agreement in verbals. Inflectional affixes essentially make different grammatical forms of the same word, (Katamba, 1987).  For nouns, they inflect for number. Do you still remember that there are prefixes to denote the singular as well as those that denote the plural? The dichotomy of prefixes save for this purpose (to account for grammatical number). In verbals inflectional affixes inflect for tense.  Take a look at the following and make conclusions of your own:  Nyanja: i) munthu ==> anthu ‘person/ people’  ii) muzela ==> mizela ‘line/lines’  iii) -sek- ‘laugh’ ==> alikuseka ‘they are laughing’ ==> anaseka ‘they laughed’.  **(d) Derivational morphemes** are morphemes which can be added to a root and to a lexeme to get another word. In Bantu languages, these morphemes are **suffixes**. Here, we get a new word as well as a change of word class. Analyse the following data from Tonga:  i) –lemb- ‘to write’ ==> mulembi ‘writer’  ii) –lel- ‘nurse’ (V) ==> muleli ‘nurse’ (N)  **(e) Discontinuous morpheme**  What do you think this morpheme is? Why is it called a discontinuous morpheme? Let us begin by looking at this example in Tonga:  Tababali ==> ta- -ba- bal- -i ‘they do not read’  In this example, we can see that the morpheme *ta*- is a negative morpheme, -*ba*- a subject morpheme, *-bal-* the radical and –*i* an ending. The ending, however, is part of the negative morpheme *ta*-. It also denotes negation. Hence *ta*- and –*i* is the same negative morpheme interrupted by the subject and radical.  Can you explore the notion of a discontinuous morpheme in other Zambian Languages? What about in other Bantu languages? 5.7 The Morph and Allomorphy You need to be reminded of the notion of morph and allomorphy. Can you brain storm and explain the two concepts. Well! A morph is a phonetic or orthographic representation of a morpheme. It is what we hear in speech and what we see in writing, as a representation of a morpheme, the smallest grammatical unit in language. An allomorph is a variant of the same morpheme. For instance, the morpheme *mu*- in *mwana* in ciNyanja has a variant *mw*- which as linguists know that it is initiated by the process of semi-vocalisation.  Can you think of other allomorphs in your language? You may discuss this with a colleague on this course.  **Types of morphs**  The morph and the morpheme are two levels of structure which usually correspond. For example, in the word ‘anabwera’ there is a one to one correspondence of morpheme to morph. Hence, we have;  a- + -na- + -bwer- + -a four morphemes  he/she (past) ( verb) ending  There are four morphs (orthographic/phonetic forms). Each of these morphs represent a morpheme. Here, one morph => one morpheme. Therefore, there is a one on one correspondence. Let us now look at the following morphs:  **(i) Free morph**  This is a morph which gives meaning on its own. It carries a free morpheme. In Zambian languages just as in many Bantu languages, there are few free morphs. These are found in the class of interjections, onomatopoeia and some conjunctions. Here are examples in Tonga: nkaambo ‘because’, Ma! ‘expression of surprise’, naa ‘if’, ngelengele ‘a sound of a bell’. The vast vocabulary constitute bound morphs. Norminals constitute the prefix (whether explicit or not) and a stem. Verbal are agglutinate several morphs carrying specific meanings.  **(ii) Empty morph**  In English there are those morphs which correspond to no morphemes, remembering that a morpheme is the smallest meaningful, grammatical unit of a word. These morphs are known as **empty morphs**. A few examples that we have in English are borrowed words (from Germany), eg frater**n**al where the ‘–n-‘ does not correspond to any morpheme. Can you give an example of these morphs? In Bantu, such morphs require investigation. Are you able to come up with one example in Bantu?  **(iii) Zero morph**  What is a zero morph? Exemplify this notion both in English and Bantu. There is supposed to be a morph but it is not there. A zero morph in fact, represents an **invisible affix.** Most, if not all, zero morphs in Bantu Languages are invisible prefixes – that is, the absent string of a phonological or orthographic segment. Normally the zero morph is used to represent a few singular forms in some Bantu Languages You might have realised that there is consistency in the form of singular nouns in Bantu especially in Class 1, but with some lexemes there is no morph (the prefix).This is also evident with verbals in the hordienal past (equivalent to the present perfect tense in English). The morph, especially in nominals, is represented with the symbol ∅. Please, bear in mind that the zero morph is not empty. It is also not ‘nothing’. It has a value. A zero morph has also been referred to as a null morph.  Let us look at the following examples in iciBemba , ciNyanja and ciTonga:  Bemba: kolwe ‘monkey’ ==> bakolwe ‘monkeys’  Nyanja: koswe ‘rat’ ==> akoswe ‘rats’  Tonga: syuumbwa ‘lion’ ==> basyuumbwa ‘lions’  **(vi) Portmanteau morph**  What do you know about a portmanteau morph? You have dealt with this in English in the Introduction to Language and Linguistics course. If you can remember well, we discussed morphs such as ‘is, was, are’ and ‘were’ which carry more than one morpheme. In Bantu, the tense elements can carry mood and (or) aspect as well. For instance, when you say*, balalya* ‘they are eating’, in Tonga, the morph *–la-* denotes present tense and progressive aspect. Doesn’t this qualify to be a portmanteau morph?  **Activity 5.3**   1. With examples in a Zambian language of your choice, distinguish between variable and invariable word classes. 2. Distinguish the processes of inflection and derivation. 3. Distinguish between inflection in a Zambian language and English. 4. Explain with illustration between derivation in English and that of any Zambian language. 5. Illustrate the notion of allomorphy in a Zambian language. 6. Do Zambian languages have portmanteau morphemes? Explain.   **Summary**  This unit has dealt with word classes in Bantu. It has discussed the terms used in the study of Bantu linguistics morphology. Under these terms, we have expanded to deal with noun class system, radical types and verbal extensions. We have also dealt with morphological concepts such as inflection, derivation, morphemes, morph and allomorph. We have seen that the processes of inflection and derivation operate differently in language Derivation, also called lexical morphology deals with the formation of lexical items while inflection deals with grammatical forms. In English, inflection is basically by suffixation while derivation involves both prefixation and suffixation. In Zambian languages, however, inflection is by prefixation while derivation is by suffixation.  While a morpheme is an abstract but minimal meaningful unit in language, a morph is a phonetic or orthographic representation of a morpheme. Allomorph is a variant of the same morpheme. In the unit, you have also discussed types of the morpheme. The types that have been discussed are zero morpheme, empty morpheme, bound morpheme and discontinuous morpheme. We also categorised inflectional and bound morphemes.  **UNIT 6**  **MORPHOPHONOLOGICAL RULES AND PROCESSES**  6.0 Introduction  Morphological processes in many Bantu languages deal with morphophonemics. What do you understand by the term ‘morphophonemics’? You may realise that the term is formed by combining ‘morph’ and ‘phonemics’ where ‘morph’ is the smallest sequence of phonological units into which words are divided in an analysis of morphemes and ‘phonemics’ dealing with the identification of phonemes. Therefore, we can see from the composition of the term that there is a process of phonological representation in the formation of a word. Certain sounds would influence other sounds within a word or at word boundary. Most of such rules operate on nominals and verbals and less on categories such as adverbs, adjectives and pronouns.  Learning Outcomes  By the end of the unit, you are expected to;   * explain what a morphological process is. * explain with illustration the various morphophonological processes in any local language.   **6.1 Morphophonological processes in nominals**  In LBL 2101, you dealt with some morphological processes. In this unit, we would like to look at what influences these changes. Here are the common ones:  **1) Deletion (Reduction, truncation, loss)**  You all know what deletion is. What process is this? What influences it? This is a process where a phonological segment is deleted in the formation of a word. Examples:  Lozi: ba-anana => banana ‘children’ (in a-a, the first ‘a’ is deleted, that is, the vowel of the prefix).  Tonga: ba-ana => bana ‘children’  In most Bantu languages, the size of the word influences deletion of some elements. A nasal is also deleted when it occurs before another nasal.  Bemba: n-landile => **n**nandile => inandile ‘I have said’  In the Bemba example above, a Bantuist would know that unbolded ‘n’ next to the bolded one in nnandile is a result of stopping. There is change of a feature where /l/ becomes /n/. Thereafter, the initial nasal is deleted.  **2) Coalescence** **(Fusion)**  According to Silverman (1992), coalescence is the combination or fusion of two or more segments forming one. In many Zambian languages different vowels running together will fuse to form different vowel. In some cases the new element may be doubled as in the Lozi, Kaonde, Lunda and Bemba examples below.  Examples:  Bemba: a-ma-ulu => amoolu ‘legs’ (a+u =>oo) (Compare: u-ku-ulu =>ukuulu ‘leg’); a-ma-insi => ameenshi (a+i =>ee)  Kaonde: ma-ino => meeno ‘teeth) (a-i =>ee); (Compare: li-ino => jiino ‘teeth’)  Lozi: ma-ino => meeno ‘teeth’ (a+i =>ee); Compare: li-ino => liino ‘teeth’ (i-i => i)  Lunda: ma-isu =>meesu ‘eyes’, Compare: di-isu => diisu ‘eye’  Tonga: ma-ino => meno ‘teeth’ (a+i => e) (Compare: li-ino => lino ‘tooth’)  Coalescence does occur at word boundary as well. An example in Bemba is given below.  Bemba: icisote icakashika => icisotee cakashika  **3) Semi-vocalization (Gliding)**  This process involves the production of a semi-vowel in specific environments. For instance, when a high back precedes vowels other than ‘o’ and itself, it becomes ‘w’. The vowel ‘i' also semi-vocalises to ‘y’. Examples:  Lozi: mu-anana => mwanana ‘child’ (u =>w before a; it also become w before e or i)  Bemba: u-mu-ana => umwana ‘child’ (the mwa is long) i-mi-aka => imyaka ‘years’ (the *mya* is long)  Lunda: mu-ana => mwana ‘child’ (the *mwa* is long)  Nyanja: mu-ana => mwana ‘child’  Tonga: mi-ezi => myezi ‘months’  **4) Metathesis**  This is a process that involves a reshuffle of the order of elements. It is common in borrowed words. Think of words that involve metathesis. Is there anything that influences such arrangement of morphological constituents? How are the words ‘kitchen’ and ‘shovel’ expressed in your local language?  From the data availed in most of the Zambian languages, it seems metathesis is influenced by the order of consonants. For instance, ncikini, fosholo. Compare: English ‘aks’ from ‘ask’.  **5) Insertion**  One of the most common processes in Bantu morphology is insertion of elements to a borrowed constituent. The many words that are borrowed have their destiny in class 5. Let us look at the following:   1. shovel 2. fork 3. spoon 4. dress 5. biscuit   Translate each of these into a Zambian Language of your choice and analyse the difference. You will realise that in any of the local languages, there is an element that is inserted in the borrowed word. This is the nature of the Bantu language syllable formation. Words are composed of Consonant + Vowel as the unmarked syllable structure. Where the borrowed lexeme presents a coda or a string of consonants in the onset or coda, a vowel will be inserted. A word that is formed in this manner is said to be nativised and the process as **nativisation**.  **6) Feature changing rules**  There are instances when a segment changes form. The many morphemes that are influenced by specific environments involve feature changing rules. For instance, in many Bantu languages, when /u/ is followed by a front vowel, the /u/ changes to a bilabial glide /w/. Hence, [u] [w]/ [i, e]. Can you cite some of the feature changing rules that apply in your local language?  **7) Nasalisation**  Nasalisation is not a new concept to you. We have met it and used it in some circumstances. Nasalisation is a process where a non-nasal element is produced with nasality. For instance a vowel is nasalised in the context of nasals. Consider the /e/ in [inembo] ‘tatoo’ in Bemba and meenda ‘water’ in Tonga.  In Silozi, this process occurs, also, through the influence of reflexive formative ‘i', eg. in ipulaya ‘kill oneself’ formed from bulaya ‘kill’ the [p] is nasalised, (Mwisiya, 1977). Collins (1962) considers nasalisation as a mechanism where any consonant in Tonga can be spelt with a nasal preceding it, (p.7). Hence, a nasalised becomes nga; b nasalised becomes mb, and so on.  **8) Vowel harmony in ‘manner-of-doing’ nouns**  The rule is that in manner-of-doing nouns in Bemba, Kaonde and Tonga, the initial ‘i’ of the derivational suffix surfaces as ‘e’ after a mid-vowel ({e, o}). This is vowel harmony (or vowel assimilation) because a non-mid vowel becomes mid because of its proximity with a mid-vowel.  Examples:  Bemba:   1. i-mi-sek-ile => imisekele ‘manner of laughing’ 2. i-mi-bomb-ile => imibombele ‘manner of working, method’   Compare with:   1. i-mi-kal-ile => imikalile ‘way of living/sitting’ 2. i-mi-lil-ile => imililile ‘way of eating’   Kaonde   1. n-pot-ilo => mpotelo => ‘manner of buying’ 2. n-teek-ilo => nteekelo ‘manner of ruling/governing’   Compare with:   1. n-laal-ilo => ndaajilo ‘manner of sleeping’ 2. n-tu-ilo => ntwijilo ‘manner of pounding’   Lunda:   1. n-sonek-ili => nsonekeli ‘manner of writing’ (kusoneka ‘to work’) 2. n-lomb-ili => ndombeli ‘manner of asking/prating’ (kulomba ‘to ask/pray’)   Compare with:  • n-nzatʃili ‘manner of working’ (kuzata ‘to work’)  Nyanja:   1. ka-sek-idwe => kasekedwe “manner of laughing’ (kuseka ‘to laugh’) 2. ka-cos-idwe => kacoskedwem’manner of removing’ (kucosa ‘to remove’)   Compare with:   1. ka-lim-idwe => kalimidwe ‘manner of cultivating (kulima ‘to cultivate’)   Tonga:  1. mi-sek-ilo => misekelo “manner of laughing’  2. mi-ko-ilo => mikolelo ‘manner of coughing’  **5) Nasal harmony** is a morphophonological rule in which a non-nasal element becomes a nasal in the environment or context of nasals.  Examples:  (a) Bemba: -ile/ → -ine/ V {n,m} ꟷ ≠  E.g. i-mi-lim-ile => imilimine ‘way of cultivating’; compare with i-mi-ikal-ile =>  imiikalile ‘way of sitting/living’  (b) Kaonde: -ilo/ → -ino/ V {N, M} ꟷ ≠  E.g. n-rim –ilo => njimino ‘way of cultivating ‘; compare with n-laal-ilo => ndajilo  ‘manner of sleeping’  (c) Lunda: -ili/ → -ini/ V {n,m} ꟷ ≠  E.g. n-kandam-ili => nkandamini ‘way of climbing’; compare with: n-zat-ili =>[nzaʧili ]  ‘manner of working’; kuzata ‘ to work’  NOTE: The l of –ile/ilo/ili above is subject to vowel harmony, so that the same word can undergo both vowel harmony and nasal assimilation.  **Activity 6.1**   1. Give an account of the following morphophonological processes in some Bantu languages: 2. nasalisation 3. vowel harmony 4. coalescence 5. fusion 6. semi-vocalisation   **6.2 Morpho-phonological rules in verbals**  In this sub-section we present some of the morphophonemic (morphophonological rules operating in verbals. These are usually on verbal extensions.  **1)** **Vowel Harmony**  In most Bantu languages, the vowels are divided into two harmony set; (a) the high and low vowels {i, u, a} and (b) the mid vowels {e, o}. You have seen that the concept of vowel harmony deals with the influence of the vowel in the radical extension by the vowel of the radical. However, when the vowel of the radical is from the high/low set, -i- is used and when the radical is from the mid set, -e- is used.  Tonga: kulila ‘to cry’ ==> kulilila ‘to cry for’  Kuula ‘to buy’ ==> kuulila ‘to buy for’  Kubala ‘to read’ ==> kubalila ‘to read for’  But  Kuseka ‘to laugh’ ==> kusekela ‘to laugh for’  Kulemba ‘to write’ ==> kulembela ‘to write for’.  In Bemba and Tonga, the vowel ‘i' belonging to an extension other than causative –i- is realized by the mid vowel ‘e’ if the last vowel of the radical is mid (= e/o), e.g. Bemba: u-ku-leet-ila => ukuleetela ‘to bring for’; Tonga: ku-belek-il-a => kubelekela ‘to work for’.  In Bemba and Tonga, the vowel u belonging to an extension – is realized by the mid vowel o if the last vowel of the radicle is the mid ‘o’ (but not u!), e.g. Bemba: u-ku-pomb-ulu-a => ukupombolola ‘to unfold’; Tonga: ku-long-ulul-a => kulongolola ‘to unpack’. Note that this does not occur in Lozi.  **2) Nasal Assimilation**  In Bemba and Tonga, an ‘i’ belonging to an extension is realized by the nasal /n/ if it immediately follows a radicle ending in either ‘m’ or ‘n’, e.g. –lim-il- => -lim-in- ‘to cultivate for; Bemba: u-ku-min-il-a => ukuminina ‘to swallow for’; Tonga: ku-min-in-a => kuminina ‘to blow one’s nose for’.  Note the following:   * In both Vowel Harmony and Nasal Assimilation, above, the assimilated segment follows the assimilating segment. This kind of assimilation, or harmony, is termed progressive assimilation. Furthermore, in cases where the realization of the assimilated segment is not identical to the assimilating segment, assimilation is said to be partial assimilation as opposed to total assimilation. * The same extension can undergo both Vowel Harmony and Nasal Assimilation, e.g. Bemba: u-ku-men-il-a => ukumenena ‘to sprout for’; Tonga: ku-men-il-a => kumenena ‘to swallow for’.   **3) Spirantisation**  Do you still remember that spirantisation is the same as fricativisation? What does this process involve? Do you know that this morphophonology aspect occurs in verbal extensions? In Bemba and Tonga, before a causative extension –i-, some non-nasal consonants spirantise. This is to say, they are realised by a spirant. Let us look at the following examples:  Bemba: ukubomba ‘to work’ ==> ukubomfya ‘to use’  Tonga: beleka ‘to work’ ==> kubelesya ‘cause to work’  Can you determine why the examples above are termed to be spirants? Yes. The [b] and [k] are plosives. When these occur before –i-, the forms are realised as spirants.  In Silozi, the [l] of the applied extension is realised by [z] in certain environments, mainly after monosyllabic radicals ending in [s, z, ր].  Silozi: kubusela ‘to govern for’ => kubuseza ‘to roast for’  kubizela => kubizeza ‘to call for’  **Activity 6.2**  1. Explain with example in any Zambian language the process of spirantisation.  2. Illustrate the rules of vowel harmony and nasal harmony in Zambian languages verbals.  **Summary**  In this unit, we have discussed the various phonological and morphological processes that take place in language. The unit has indicated that there is an interaction of phonology and morphology in the formation of nouns and verbals. Some phonemes are influenced by other phonemes in certain environments and such effect form patterns that give rise to specific generalisations, indicated here as processes and rules.  **UNIT 7**  **STABILIZATION**  7.0 Introduction  In this unit you are going to look at the concept of stabilisation. This phenomenon is common in some Zambian languages such as Bemba, Kaonde and Tonga. Do you have an idea of what it is? Read through this unit with much concentration.  Learning Outcomes  By the end of this unit, you are expected to;   * Explain the concept of stabilisation. * explain the rules for stabilisation in Bemba, Tonga and Kaonde. * stabilise any given constituent in a given language.   **7.1 The concept of ‘stabilisation’**  Stabilization is the use or formation of a word capable of standing as a complete sentence of its own. It is a “process by which a noun, adjective or other form is made into a predicate…”, (Cater, 2002:24). Thus, the Bemba noun *umushi* ‘village’ takes the stabilised form *muushi* ‘it is a village’. A stabilised noun, therefore, carries the notion of ‘it/he/she is…’ or ‘they are…’ depending on the case. Some authors use the terms ‘copulative forms,’ or ‘noun predicates’. I hope you still remember the notion of copula and predicate.  In Bemba, when you say, ecipushi, you will have made the noun into a stable form. The negative would be *tecipushi* ‘it is not a pumpkin’, (Mann, 1999: 14).  Some Zambian languages do not have such a phenomenon. According to the above definitions, there is no noun stabilization in Lozi. Try to form one in siLozi using the Bemba noun above. What you have are two words; *ki munzi* ‘it is a village’.  **7.2 Noun stabilization in Bemba.**  Only nouns with augments, except those in classes 9 and 10 (i.e in the two classes where the noun prefix has no vowel) can be stabilized. Do you know that the process for stabilising a noun in Bemba requires you to do the following:   1. delete the augment; and 2. lengthen the prefix vowel. 3. umuntu (u-mu-ntu) ‘person’ => muuntu ‘it is a person’ 4. umusha ( u-mu-sya) ‘slave => muusha ‘it/he/she is a slave’ 5. abasha (a-ba-sya) ‘slaves’ => baasha ‘it is slaves’/ they are slaves’ 6. icisite (i-ci-site) ‘hat’ => ciisote ‘it is a hat’ 7. ifisote (i-fi-sote) ‘hats’ => fiisote ‘it is hats/they are hats’   In instances where a noun cannot be stabilized, because it has no augment (which is the case with zero-prefix nouns) or it is in class 9 or 10, *ni* is used. Let us look at the following:   1. Mutale (class 1a) ‘Mutale’ (proper noun) => ni Mutale ‘it/he/she is Mutale’ 2. kolwe (class 1a) ‘monkey’ ni kolwe ‘it is a monkey’ 3. baakolwe (class 2a) ‘monkeys’ => ni baakolwe ‘it is monkeys/they are monkeys’ 4. imbwa (class 9 or 10). ‘dog(s)’ => ni imbwa ‘it is a dog’, /‘it is dogs’, /‘they are dogs’   Examples 5 to 8 clearly show that the categories of nouns in these classes cannot be stabilised. They are presented as two words instead of one.  **7.3 Noun stabilization in Tonga**  In Tonga, a distinction must be made between (a) indefinite stabilization (i.e, it is a …’, ‘he is a…’, etc.) and (b) definite stabilization (i.e. it is the…’, ‘he is the..’, etc.). Additionally, stabilization of nouns in classes 9 and 10 is different from that of nouns in the other classes. Note that nouns in these classes are stabilised because they are expressed as single words.  **7.3.1 Indefinite stabilization**  In indefinite stabilization, (‘it is…’, ‘he is..’, etc.) two parameters have to be taken into account:   1. Whether the noun has a phonetic prefix (i.e, a non-zero prefix) or a zero prefix; and 2. Whether the noun with a phonetic prefix is in (a) class 9 or 10 or (b) in another class (i.e. a class other than 9 and 10.   To form an indefinite stabilised noun, you need to prenasalise the prefix consonant, with the provision that in classes 9 and 10 the nasalising nasal element is preceded by ni-. If the prefix consonant is *m*-, there is no difference in the orthographic output, except in tone (a near aspiration is heard). In class 5, where some nouns have prefix li-, note that prenasalised [l] surfaces as [d] (see classes 5 and 11 in the Table 1). Also note that class 16 locative prefix a- is prenasalised into *mpa*-; a special variant of the locative prefix in class 16 which is *pa*-.  Table 1: Indefinite noun stabilisation in Tonga   |  |  |  | | --- | --- | --- | | **CLASS** | **UNSTABILIZED** | **STABILISED** | | 1 | muntu ‘person’ | muntu ‘it is a person’ | | 2 | bantu ‘people’ | mbantu ‘they are people’ | | 3 | munzi ‘village’ | munzi (n-mu-nzi) | | 4 | minzi ‘villages’ | minzi (n-mi-nzi) | | 5 | lkumbi (i-kumbi) ‘cloud’  linyo (li-inyi) ‘tooth’ | ndikumbi li-kumbi)  (<n ndinyo (<n-li-inyo)- | | 6 | makumbi ‘clouds’ | makumbi (<n-ma-kumbi) | | 7 | cintu ‘thing’ | Ncintu | | 8 | zyintu ‘things’ | Nzyintu | | 9 | impongo ‘goat’ | nimpongo (< nin-pongo) | | 10 | impongo ‘goat’ | nimpongo (< nin-pongo) | | 11 | lugwalo ‘letter’ | ndugwalo (n-lu-gwalo) | | 12 | kasimbi ‘litle girl’ | nkasimbi | | 13 | tusimbi ‘little girls’ | Ntusimbi | | 14 | bukoko ‘beer’ | Mbukoko | | 15 | kutwi ‘ear’ | Nkutwi | | 16 | akutwi ‘on the ear’ | mpaakutwi | | 17 | kumunzi ‘at/to the villge | nkumunzi | | 18 | mumunzi ‘in(to) the village’ | muumunzi (n-mu-mu-nzi) |   Nouns with zero prefix are stabilized differently. For example, in class 1a the prefix is u (prenasalised to ngu, e.g. ngu Muchindu ‘it is Muchindu’) and the class 2 prefix is baa (e.g. mbaasilweendo ‘they are travellers).  **7.3.2 Definite stabilisation in Tonga**  Definite stabilisation translate for the English ‘it is the…/ they are the… depending on the class in which the stabilised constituent belongs. The morphological structure of definite stabilised nouns in Tonga is as follows:  Nasal +Prefix1 + V + Prefix2 + Stem  Note the following:   1. The ‘**Nasal**’ (the main feature expressing stabilisation) may be referred to as a **Preprefix** and the ‘V’ (for ‘vowel’) may be referred to as an **Infix**; 2. **Prefix2** is the prefix of the unstabilised noun; 3. **Prefix1** is different from a prefix of citation form in some classes. 4. ‘V’ is one in the set {e, o, a}, as follows (see adjectives in Lozi): e after i, o after u, a after a; 5. Prenasalised surface as follows, respectively: NASAL + u => ngu; NASAL + e => nje; **Nasa**l + a => nga.   Examples of definite noun stabilisation in Tonga (with the element representing ‘V’ in bold) are given in Table 2 below.  Table 2: Definite noun stabilisation in Tonga   |  |  |  | | --- | --- | --- | | **CLASS** | **UNSTABILIZED** | **STABILIZED** | | 1 | muntu ‘person’ | n-u-**o**-mu-ntu => ngomuntu ‘he is the person’ | | 2 | bantu ‘persons’ | n-ba-**a**-ba-ntu => mbabantu ‘they are the people’ | | 3 | munzi ‘village’ | u-**o**-mu-nzi => ngomunzi ‘it is the village’ | | 4 | minzi ‘villages’ | n-i-**e**-mi-nzi => njeminzi ‘they are the villages’ | | 5 | ikumbi ‘cloud’ | n-li-**e**-i-kumbi => ndekumbi ‘it is the cloud’ | | lino ‘tooth’ | n-li-**e**-li-ino => ndelino ‘it is the tooth’ | | 6 | makumbi ‘clouds’ | n-a-**a**-ma-kumbi => ngamakumbi ‘they are the clouds’ | | 7 | cintu ‘thing’ | n-ci-**e**-ci-ntu => ncecintu ‘it is the thing’ | | 8 | zyintu ‘things’ | n-zi-**e**-zyi-ntu => nzezyintu ‘they are the things’ | | 9 | impongo ‘goat’ | n-i**-e**-in-pongo => njempongo ‘it is the goat’ | | 10 | impongo ‘goats’ | n-zi-**e-**in-in-pongo => nzempongo ‘they are the goats’ | | 11 | lugwalo ‘letter’ | n-lu-**o**-lu-gwalo => ndolugwalo ‘it is the letter’ | | 12 | kasimbi ‘little girl’ | n-ka-**a**-a-ka-simbi => nkakasimbi ‘it is the little girl’ | | 13 | tusimbi ‘little girls’ | n-tu- **o**- tu-simbi => ntotusimbi ‘it is the little girls’ | | 14 | bulongo ‘soil’ | n-bu-**o-**bu-longo => mbobulongo ‘it is the soil’ | | 15 | kutwi ‘ear’ | n-ku-**o**-ku-twi => nkokutwi ‘it is the ear’ | | 16 | amutwe ‘on the head’ | n-a-**a**-a-mutwe => mpáamutwe ‘it is on the head’ | | 17 | kumunzi ‘at the village’ | n-ku-**o**-ku-munzi => nkokumunzi‘it is at the village’ | | 18 | mumunzi ‘in the village’ | n-mu-**o**-mu-munzi => momumunzi ‘it is in the village’ |   Note that in the process of a definite stabilisation, there is a rule of vowel lowering as in the examples in Table 5 above.  There is also stabilisation of other word classes in Tonga. If you are not Tonga, can you ask any Tonga informant to gloss the following:   1. It is me/ I am the one. 2. It is the one. 3. They are the ones. 4. He is the one. 5. It is you/ You are the one.   **7.4 Noun stabilization in Kaonde**  In Kaonde, stabilized forms have the same shape as citation forms as exemplified in (9) and (10) below.   1. muntu ‘a person’ or ‘it is a person; bantu ‘people’ or ‘they are people’ 2. nkovu ‘a tortoise’ or ‘it is a tortoise’; bankovu ‘tortoise’ or ‘they are tortoises’   Wright (2007) in ‘An Outline of Kikaonde Grammar’ establishes two other ways of expressing the indefinite stabilisation In Kaonde:   1. By the use of the second-object-concord of the appropriate class. For instance; ye-muntu ‘it is a person’, kyo-kichi ‘it is a tree’, jo-jishinda ‘it is a path’. 2. By the use of of the invariable particle ‘ke’ denoting negation or change of form as in; ke-mufunjishi ‘s/he is not a teacher’, ke-muntu ‘it is not a person (now)’   Wright further claims that there is the definite form which is expressed by the use of the second object-concord preceded by the formative ‘i', eg.  i-ye-muntu ‘it is the person’  i-bo-bantu ‘it is the people’  i-kyo-kichi ‘it is the tree’  i-jo-jishinda ‘it is the path’  When we look at these examples, we notice that the Kaonde constituents are not presented by a single constituents. From the definition of stabilisation and the notion of stable forms, we are forced to treat kiKaonde like siLozi and ciNyanja, eg. ki mutu ‘it is a person’ and ni muntu ‘it is a person’ for siLozi and ciNyanja respectively.  **7.5 Stabilization of adjectives**  Like nouns, adjectives in Bemba and Tonga may be stabilized and they are stabilized in the same way as nouns.  Example 1 (Bemba): abasuma ‘good/beautiful’ (class 2) => baasuma ‘they are good’  Example 2 (Bemba): aba bantu baasuma ‘these people are good’  Example 3 (Bemba): icisuma ‘good’ (class 7) => ciisuma ‘it is good/beautiful’  Example 4 (Tonga): babotu ‘good/beautiful’ (class2) => mbabotu ‘they are good/beautiful’  Example 5 (Tonga): cibotu ‘good/beautiful’ => ncibotu ‘it is good/beautiful’  Example 6 (Tonga): eci cintu ncibotu ‘this thing is good’; ncibotu ‘it is good’.  Are you able to construct definite stabilised forms? Well! It is possible in Tonga.  Example 7: mbababotu ‘they are the beautiful (ones)’  Example 8: ncecibotu ‘it is the good one’  **7.6 Stabilisation in other constituents**  In languages such as Bemba and Tonga, almost all the variable nominal forms. Do you know that you can also stabilise the demonstratives? Yes! If you look at the Tonga examples below, you will realise some are emphatic demonstratives while others are not (depending on tone). Most of these are expressed as demonstrative predicates, (Collins, 1962:88, 89).  Tonga Examples:  i. mbáába ‘they are here’  ii. ncéécí ‘it is here’/ ncinceeci ‘it is this one’  iii. mbáábaya ‘they are there’  iv. mbabaaba ‘they are these’  v. ngúúnó ‘he/ she is here’/ nguuno ‘it is this one (near me far away from you).  vi. ngúúlyá ‘he is there’ / nguulya ‘it is that one’  vii. mpampawaawa ‘it is (indeed) here’; class 16.  viii. ndime ‘it is me’  Pronominals are also constituents that can be stabilised. These include personal and possessive pronouns.  Table 3: Stabilised pronominals in Bemba and Tonga   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **S/N** | **UNSTABILISED** | | | **STABILISED** | | | |  | **Bemba** | **Tonga** | **Gloss** | **Bemba** | **Tonga** | **Gloss** | | 1 | ine | Mebo | ‘me’ | nine | ndime | ‘it is me’ | | 2 | ifwe | swebo | ‘us’ | nifwe | ndiswe | ‘it is us’ | | 3 | iwe | yebo | ‘you’(2nd Pers. sg.) | niwe | ndiwe | ‘it is you’ (2nd Pers. sg.) | | 5 | imwe | nywebo | ‘you’ (2nd pers. pl.) | nimwe | ndinywe | ‘it is you’(2nd pers. pl.) |   Some Bemba examples include definite stabilisation such as ebo ‘they are the ones’, ewo ‘she/he is the one’. Possessive pronouns can also be stabilised, eg. caandi ‘it is mine’, fyeesu ‘they are ours’. Tonga also have these forms, eg ncicangu ‘it is mine’ and nzizyesu ‘they are ours’. Provide more examples in your own language or any other language other than the ones.  **Demonstratives in Zambian languages and English**.  Can you make a critical comparison of demonstratives in Zambian languages and English? How do each operate? Share this to the class or a colleague on this course.  Now, is stabilisation possible in verbals? You can try to construct stable verbal forms in your language or any Zambian language that you know very well. This is not possible. Whenever you use a verbal, you would be expressing a nominal stable form in class 15. Do you still remember what class this is? Of course, a class of infinitives. You can now give examples. Check on these:  Bemba: ekubomba ‘it is the working’  Tonga: nkokubeleka ‘it is the working’  Kaonde: kekusebenza ‘it is the working’  **Activity 7.1**   1. Explain the rules for stabilising nominals in the following languages: 2. Bemba 3. Tonga 4. Kaonde 5. Why is stabilisation not possible in Lozi, Nyanja, Luvale and Lunda? 6. Can nouns of class 9 and 10 in Bemba be stabilised? Justify. 7. Exemplify stabilisation of adjectives in any Bantu language. 8. Compare the formation of pronominal stable forms in Bemba and Tonga. 9. Compose a table for possessive pronouns for all the nominal classes in either Bemba, Kaonde or Tonga. 10. Stabilise the numeral forms (both cardinals and ordinals) in the language of your choice.   **Summary**  In this unit, you have learnt that a stable form is a word which stands as a complete sentence. Nouns are the most prominent of this category. Because demonstratives, pronouns and numerals are nominals, they can also be stabilised in the Zambian languages that permits stabilisation. There is no stabilisation in Lozi, Nyanja, Luvale and Lunda because the expressions of ‘it is…/ ‘they are’ are rendered by more than one word. |

**REFERENCES**

Chanda, V.M. (2006). *LAL 311: The Phonology and Morphology of African languages.*LUSAKA: UNZA

Crystal, D. (1987). *The Encyclopaedia of Language*. Cambridge: Cambridge University Press.

Crystal, D. (1991). *A Dictionary of Linguistics and Phonetics*. 3rd Edition. Cambridge: CUP.

Fortune, G. (2001). *An Outline of Silozi Grammar*. Lusaka: Bookworld Publishers.

Guthrie, M. (1967), 1970a). *Comparative Bantu* (Vol. 1 in 1967, Volume 2, 3 and 4 1970). England: Gregg Press. Ltd,

Press.

Katamba, F. (1987). *An Introduction to Morphology*. Harlow: Longman .

Carter, H. (2002). *An Outline of Chitonga Grammar*. Lusaka: Book world Publishers.

Lehmann, D. (2002). *An Outline of Cinyanja Grammar.* Bookworld Publishes.

Mann, Micheal (1999) *An Outline of Icibemba Grammar.* Lusaka: Bookworld Publishers.

Matthews, P. H. (1997) *Concise Dictionary of Linguistics*. Oxford: Oxford University Press.

Wright, J. L. (2007) *An Outline of Kikaonde Grammar. Lusaka:* Bookworld Publishers.

Yule, G. (1997) *The Study of Language* (2nd Edition). United Kingdom: Cambridge University Press.

<https://www.google.co.zm/search?source=hp&ei=Be7pXubRItKZ1fAP8d6g-AE&q=tone+language+in+linguistics>, downloaded on 23.06.19.