

THE NIMBORAN LANGUAGE

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THE NIMBORAN LANGUAGE

PHONOLOGY AND MORPHOLOGY



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PREFACE

During three years of linguistic research in Western New Guinea in the service of the Koninklijk Instituut voor Taal-, Land- en Volkenkunde (Royal Institute of Linguistics, Geography and Ethnology, The Hague), the writer had as his main task the study and analysis of a hitherto undescribed language. When the choice fell on the Nimboran language, it was not to be foreseen that this meant opening up a gold mine of linguistic data. Indeed, the investigations, though often slow and laborious, proved most rewarding. The amount of data was so overwhelming that remoulding them into a complete description required much time. Moreover, it was my wish to do more than just listing the facts. From the outset, I tried to undig the generative aspect of the linguistic structure. Therefore, the idea was not to compile a corpus of data which could be analysed later on, but to find out what role every element that was recorded could play in building new utterances. This meant that the description was to be made along new lines. It was only after years that I found the peace to complete this task. In the near future I hope to add a description of Nimboran syntax, some texts, and a vocabulary to the phonological and morphological parts, embodied in the present volume.

I owe a great debt of gratitude to the Koninklijk Instituut voor Taal-, Land- en Volkenkunde for both organizing the research and publishing the results, and to the former Government of Netherlands New Guinea and the Netherlands Organisation for the Advancement of Pure Research (Z.W.O.) for liberally subsidizing the project.

I am also deeply in debt to Dr. J. van Baal, then Governor of Netherlands New Guinea, whose sympathetic and interested attitude appeared most helpful, and to Mr. C. J. Grader and Dr. J. V. de Bruyn of the Bureau of Native Affairs (Kantoor voor Bevolkingszaken) who did very much in paving the way and taking charge of all sorts of practical arrangements. Much help was also given by the District-Officers, Dr. W. J. H. Kouwenhoven and Mr. E. van Voskuylen.

Warm thanks are also due to Dr. E. M. Uhlenbeck and Dr. H. Schultink for their important suggestions and constructive criticism of which, I hope, I have gratefully taken advantage.

It is impossible to mention the names of all those who in some way or other have been helpful. Above all, this is true for the Nimboran people whose assistance, willingness, hospitality, and patience were essential for the success of my work. I will hold them in grateful remembrance for the rest of my life.

J. C. ANCEAUX

CONTENTS

	<i>Page</i>
PREFACE	V
CONTENTS	VII
LINGUISTIC MAP OF THE NIMBORAN-SENTANI AREA	XIV
MAP OF THE NIMBORAN LANGUAGE AREA	XV
INTRODUCTION	1
1. The Nimboran language and its speakers	1
2. Surrounding languages and linguistic relationships . . .	1
3. How the materials were collected	2
PART ONE: PHONOLOGY	5
I. THE WORD	7
II. THE PHONEMES	8
1. Nature and function of phonemes	8
2. The system of the (segmental) phonemes in general outline	9
3. Extra-systematical phonemes	9
III. DESCRIPTION OF THE VOWEL-PHONEMES	10
1. <i>i</i>	10
2. <i>e</i>	11
3. <i>a</i>	13
4. <i>y</i>	13
5. <i>o</i>	14
6. <i>u</i>	15
IV. DESCRIPTION OF THE CONSONANT-PHONEMES	15
1. <i>p</i>	15
2. <i>b</i>	16
3. <i>m</i>	17

	<i>Page</i>
4. <i>t</i>	18
5. <i>d</i>	19
6. <i>n</i>	20
7. <i>k</i>	21
8. <i>g</i>	22
9. <i>ŋ</i>	23
10. <i>r</i>	23
11. <i>s</i>	24
12. <i>h</i>	25
 V. VOWEL-SEQUENCES	 27
1. The mutual combinability of vowel-phonemes	27
2. Vowel-sequences beginning with <i>i</i>	28
3. Vowel-sequences beginning with <i>e</i>	29
4. Vowel-sequences beginning with <i>y</i>	29
5. Vowel-sequences beginning with <i>a</i>	29
6. Vowel-sequences beginning with <i>u</i>	30
7. Vowel-sequences beginning with <i>o</i>	31
 VI. CONSONANT-SEQUENCES	 31
1. The mutual combinability of consonants	31
2. Consonant-sequences beginning with <i>p</i>	32
3. Consonant-sequences beginning with <i>b</i>	32
4. Consonant-sequences beginning with <i>m</i>	32
5. Consonant-sequences beginning with <i>t</i>	33
6. Consonant-sequences beginning with <i>d</i>	34
7. Consonant-sequences beginning with <i>n</i>	34
8. Consonant-sequences beginning with <i>k</i>	34
9. Consonant-sequences beginning with <i>g</i>	34
10. Consonant-sequences beginning with <i>ŋ</i>	34
11. Consonant-sequences beginning with <i>r</i>	35
12. Consonant-sequences beginning with <i>s</i>	35
13. Consonant-sequences beginning with <i>h</i>	36
14. Extra-systematical consonant-sequence	36
 VII. THE ACCENT	 36
1. Description of the accent	36
2. The structural function of the accent	37
3. Words having two accents	38
4. Words without an accent	39
 VIII. WORD-ALTERNANTS	 39
1. Partly homophonous synonyms	39
2. Speed-alternants	40

	<i>Page</i>
3. Conditioned word-alternants	41
4. Free alternants	42
IX. LOAN-WORDS	43
1. Foreign influence on Nimboran vocabulary	43
2. Adapted and unadapted loan-words	44
3. Characteristics of adapted loan-words	44
PART TWO: MORPHOLOGY	49
I. INTRODUCTION	51
1. Morphology: categories of form and meaning	51
2. Morphemes	51
3. Morphological categories and syntactic valence	52
4. Morphological sets. Lexical and categoric meaning	52
5. Zero morphemes	53
6. Productivity	54
7. The limits of productivity	54
8. Competitive forms	55
9. Morphological systems and their internal organization	55
10. Suppletion	56
II. THE PRODUCTIVE CATEGORIES OF THE VERB-SYSTEM	56
1. Introduction	56
2. The categories of the First Person and of the Second Person. The order of the categories of the Actor	56
3. The category of the Third Person Masculine	57
4. The category of the Third Person Neutral	58
5. The categories of Future, Present, and Past	58
6. The category of the Recent Past	60
7. Morphonological variations	61
8. Other morphonological variations	61
9. The Second Position category. Two accents on verb-forms	62
10. The Third Position category	63
11. The Fourth Position category	63
12. The Fifth Position category	63
13. The First Position category as opposed to the others	64
14. Morphonological remarks in connection with the Position categories	64
15. Future forms of the Second, Third, Fourth, and Fifth Position categories	66
16. Present forms of the Second Position category	67
17. Present - Recent Past in the Second Position category	69

	<i>Page</i>
18. Present - Recent Past forms of the Third, Fourth, and Fifth Position categories	69
19. The Sixth Position category	70
20. The Seventh Position category	71
21. The Eighth Position category	72
22. The Ninth Position category	73
23. The Tenth Position category	73
24. The Eleventh Position category	74
25. The Twelfth Position category	75
26. The Thirteenth Position category	75
27. The Fourteenth Position category	77
28. The Fifteenth Position category	77
29. The Sixteenth Position category	78
30. Survey of the Position categories: two groups	79
31. The category of the First + Second Person Singular	80
32. The category of the Dual in the Second to Sixteenth Position categories	83
33. Dual forms of the First Position category	85
34. The First + Second Person Dual	85
35. The Root-morpheme in the Dual and Singular forms	86
36. The category of the Plural	91
37. The form of the root-morpheme in Plural forms	93
38. Plural forms of the Sixth to Sixteenth Position categories	97
39. Iterative forms of the First Position category. The Iterative category and the Momentary category	97
40. Iterative forms of the other Position categories	98
41. The Masculine Object category	103
42. The Plural Object category	105
43. The Durative category	107
44. Iterative forms of the Durative	109
45. Tense categories in the Durative	111
46. The category of the Infinitive	111
47. The category of the Final Infinitive	114
48. The First Secondary Verb Category	117
49. The Second Secondary Verb Category	121
50. The Third Secondary Verb Category	122
 III. THE BLOCKADING CATEGORIES AND WORDS OF THE VERB-SYSTEM	 123
1. Introduction	123
2. Blockading categories of the Unspecified Object	123
3. Blockading categories of the Masculine Object	140
4. Blockading categories of the Plural Object	145
5. Blockading categories of the Singular	153
6. The Dual category of the prefixed <i>k</i>	155
7. Blockading categories of the Plural	156

Page

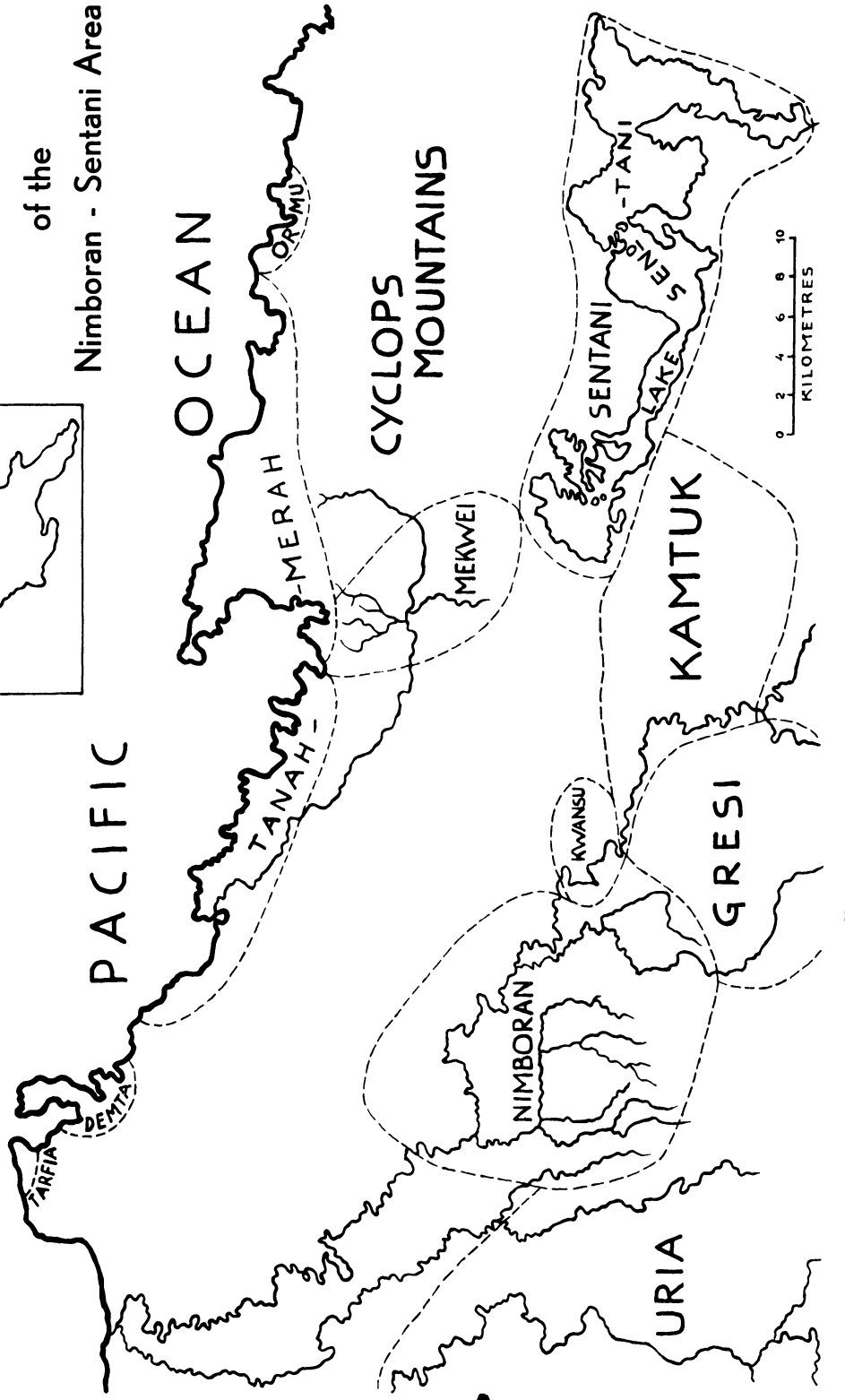
8. Blockading category of the First + Second Person Dual	158
9. Blockading category of the First Person Plural . . .	159
10. Blockading category of the Third Person Plural . .	160
11. Blockading category of the Eighth Position	161
12. Blockading category of the Ninth Position	161
13. Blockading category of the Tenth Position	161
14. Blockading category of the Fifteenth Position . . .	161
15. Blockading categories of the Infinitive	162
16. Blockading words for the Infinitive	163
17. Blockading category and a blockading word for the Final Infinitive	164
IV. THE ADDITIONAL CATEGORIES OF THE VERB-SYSTEM	165
1. The Feminine Object category	165
2. The category of the Second Person Plural	165
V. THE MORPHOLOGICAL SYSTEM OF THE PRONOUNS	167
1. Introduction	167
2. The zero category	167
3. The <i>-me</i> category	167
4. The <i>-mbe</i> category	168
5. The <i>-mýene</i> category	168
6. The <i>-mso</i> category	168
7. The <i>-msié</i> category	168
VI. MORPHOLOGICAL CATEGORIES OF THE SUBSTANTIVE	169
1. Introduction	169
2. The <i>ne-</i> category	169
3. The <i>bere-</i> category	169
INDEX OF TERMS	171
INDEX OF NIMBORAN WORDS	173
TABLE OF VERB-FORMS	185

LINGUISTIC MAP
OF THE NIMBORAN-SENTANI AREA

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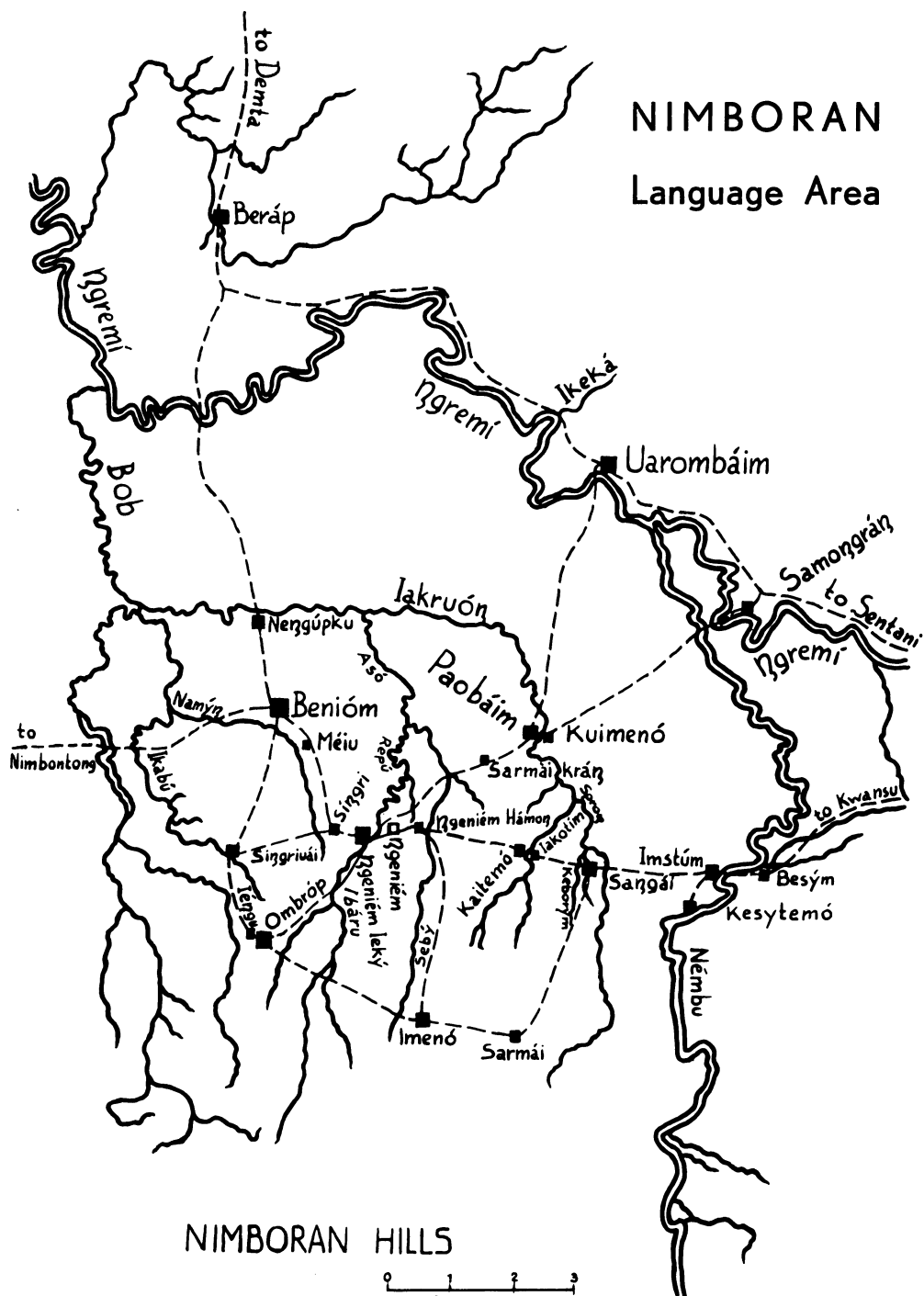
MAP OF THE
NIMBORAN LANGUAGE AREA

of the



NIMBORAN

Language Area



INTRODUCTION

1. The Nimboran language and its speakers.

The Nimboran language, as it is commonly called, is spoken by some 3000 people who call themselves *nembruón* or *nembruón* and live in a rather flat area in the basin of the *ngremí* river (*Grime* on the maps) and on the northern slopes of the hills south of that plain. This area lies west of Lake Sentani, not very far from the north coast of New Guinea.

After the second world war a number of Nimborans, for the greater part young people, gradually settled in Hollandia, the new capital of the then Netherlands territory, where they came to constitute an important group, consisting of several hundreds of people who kept alive the connections with their original country and always thought of their stay in town as being temporary.¹

2. Surrounding languages and linguistic relationships.

The Nimboran language area is enclosed by the area of the Uria language in the west and south, by the Gresi area in the south-east, the language of the villages Kwansu and Bonggrang and the Kamtuk language in the east, by the Tanahmerah language in the north-east, and by the languages of Demta and Tarfia in the north.

Of all these languages only Tarfia does not show any relationship to Nimboran.² The closest relationships of Nimboran are those with the languages of Gresi, Kwansu-Bonggrang, Kamtuk and Mekwei (also called Menggwei). The last-mentioned language is spoken in a number of villages, lying between Sentani Lake and the north coast, and so is enclosed by the Sentani language and the Tanahmerah language which

¹ For a general introduction to the Nimboran people, their culture, and the problems, arising from the recent changes in their society, see: W. J. H. Kouwenhoven, *Nimboran. A study of social change and social-economic development in a New Guinea society*. Thesis Leiden, 1956. (especially Part I and II).

² The Tarfia language belongs to the great stock of Austronesian or Malayo-Polynesian languages. It stands closest to a group of languages, spoken in the coastal area of Sarmi.

is closely related to Sentani.³ Nimboran, Kwansu-Bonggrang, Gresi, Kamtuk, and Mekwei constitute a close-knit linguistic subgroup; the speakers of these languages also show many common features in their cultures.

Of these languages Gresi and Kamtuk are most closely related. The position of the Kwansu-Bonggrang language may be said to be half way between these and Nimboran. The position of Mekwei within the subgroup is a bit more apart. So it might be said that the geographical position of these five languages is fairly reflective of their mutual relationships.

3. How the materials were collected.

The data for the present description were gathered in the years 1954 to 1957. In the following years from time to time incidental additions were made. The way of collecting data was based on the assumption that an accurate idea of the structure of a language can only be formed when the researcher has acquired a sufficient degree of mastery — both active and passive — of the language in question. This appeared to be an exacting and timetaking affair, but was most remunerative. However, even if the researcher learns to speak the language, he can ill dispense with the help of informants, because otherwise he might stand in jeopardy of describing not the language itself but only that part of it which he has learned to use. On the other hand mastering the language is a powerful means to the efficient use of informants.

During these years so many people served as informants for the research from which the present description has resulted, that it is impossible to mention all their names. But an exception must be made for Dina Napo, an adolescent girl, who was a daily collaborator for years. She proved to possess an outstanding intelligence and a natural gift for linguistic work which was not hampered by any preconceived theory which might have made it less easy for her to look upon her language with an open mind. Very soon she got a clear perception of the how and why of linguistic research and helped to think out means to discuss linguistic matters in her own language, showing great powers of invention in coining grammatical terms etc. Moreover, she had the sense not only to check up — in a crafty, subtle way — doubtful points with other informants, but also to be constantly in search for exceptions

³ See: H. K. J. Cowan, Notes on Sentani Grammar. Oceania, XXI (1950—1951), p. 214 sq.

to the "rules", already established, and for proofs of the correctness or fallacy of preliminary conclusions (the latter case receiving her preferential consideration!).

Work with Dina and other informants in Hollandia was kept going and supplemented by the results of periodical visits to the Nimboran villages. During these stays usually no systematic procedures were followed and most of the attention was given to the unconstrained, free-and-easy, conversation of the villagers which always yielded points for further investigation. As a matter of fact, it would have been impossible without observation on the spot to form an accurate idea of the Nimboran people's environment, daily life, and culture and correspondingly of the words of their language and the contents of their conversation.

Although collecting traditional tales was not entirely neglected, the main object always was the study of the living language: detection of the rules according to which the Nimboran language is spoken.⁴

⁴ There is only one publication giving information on the Nimboran language, viz.: G. Schneider, *Proben der Nimboran-Sprache*. *Zeitschrift für Eingeborenen-Sprachen*, XVIII (1927—1928), p. 128—140. We mention this here only as a matter of curiosity, as it is the result of superficial observation and so full of errors that it is of very little use.

PART ONE:

PHONOLOGY

I. THE WORD

Before proceeding to the description of the Nimboran speech-sounds and their functions, we have to discuss a term which — although a common notion in non-linguistic use — in many linguistic publications is either purposely avoided or used without any definition or discussion: the word. Our description is based on the standpoint that the Nimboran language has words as its smallest independent meaningful units. As this is not the place to set forth the theoretical backgrounds of this viewpoint, reference may be made to the existing literature.¹

In general, the word, as a linguistic unit, is characterized by:

1. a fixed form, connected with a meaning,
2. isolability.

That a word has its own form and meaning, comes from its sign-value.² By "fixed form" we mean a set of specific sound-characteristics in a fixed order. Seeming exceptions to this rule will be dealt with separately (see esp. chapter VIII). The term "isolability" does not mean that every word may be used separately (i.e. as the only constituent of a sentence), but refers to the fact that words have the possibility of being separated from surrounding words, e.g. by the insertion of other words.

The assumption of the word, as a basic unit, neither denies the possibility of border-line cases, like the "sub-words", discussed in Ch. VII, 4, nor is in any way contradicted by the existence of such border-cases.

Phonological characteristics of words as such will be discussed in chapters III to VII.

¹ Especially the comprehensive study by A. J. B. N. Reichling: *Het woord. Een studie over de grondslag van taal en taalgebruik*. Nijmegen, 1935. A review of the history of various theories on this subject is found in: Knud Togeby, *Qu'est ce qu'un mot?* Travaux du Cercle Linguistique de Copenhague, V (1949), p. 97—111.

² For a discussion of the problems, connected with the establishment of word-identity, see: H. Schultink, *On Word-identity*. *Lingua* XI (1962), p. 354—362.

II. THE PHONEMES

1. Nature and function of phonemes.

In the preceding chapter we stated that every word has its specific sound-form. These forms consist of sound-units which are called phonemes. Phonemes differ from each other in distinctive features; each phoneme may be considered as a bundle of such distinctive sound-features.

Phonemes are important means for the identification of word-forms through hearing. The determination of the role, played by any phoneme in the recognizability of a word-form, is conditioned by several factors, including the number of phonemes constituting the word,³ the existence (or non-existence) of other words which show a certain degree of similarity in sound-form to the word in question, and the contribution to the recognizability offered by the context or the situation. In the practical use of language redundancy of means of identification is of quite common occurrence. The distinctive value of phonemes, their identificational function, reaches a maximum, when words are isolated from any context.⁴

So the distinctive value of phonemes does not stand out clearly under all circumstances. On the other hand not all phonemes are the same in this respect, as they appear to show differences in their possibilities of mutual combinability and in the places they can occupy in a word-form. Consequently, some phonemes have much more chance of showing their distinctive, identificational, value than other phonemes have. But the mere fact that a sound-unit's possibilities of occurrence are limited, need not be a reason for denying its phoneme-status. In the discussion of the separate phonemes we will come across some instances of this sort.

Our description of the phonetic characteristics of the phonemes will be limited to the way in which the sounds are produced.⁵ Of course their identificational function is connected with their acoustical qualities but, as we are not able to make a description along these lines, we are forced to confine ourselves to the articulatory characteristics, as is indeed common practice.

³ "Word" is used here for "word-form"; this will be done regularly.

⁴ For the problems connected with this, see: H. Mol and E. M. Uhlenbeck, *Hearing and the concept of the phoneme*. *Lingua* VIII (1959), p. 161—185.

⁵ Much of the terminology used we owe to: Charles F. Hockett, *A Manual of Phonology*. Baltimore, 1955.

2. The system of the (segmental) phonemes in general outline.

The Nimboran language makes use of 6 vowel- and 12 consonant-phonemes.

The vowels are all unrounded and voiced.⁶ They contrast in tongue height and tongue placement. They can be charted as follows:

	front	central	back
high	i	y	u
mid	e		o
low		a	

The consonants may contrast in:

1. presence or absence of voicing,
2. point of articulation,
3. shape of articulator,
4. impedance or exit type.

They can be charted as follows:

	bilabial	apico-dental	dorso-velar	glottal
voiceless stops	p	t	k	
voiced stops	b	d	g	
nasals (voiced)	m	n	ŋ	
fricatives (voiceless)		s		h
vibrant (voiced)		r		

3. Extra-systematical phonemes.

Outside this scheme are two sound-units, occurring only in interjections.⁷ They are very limited in their occurrence, each of them found in one word only (and these words are very much limited in their use). These extra-systematical phonemes are:

- 1° voiced bilabial trill β which is rather prolonged, in *mb β (:)asié* — a cry, used by hunters;
- 2° voiceless dorso-velar fricative *x* in *ax* — ah!

⁶ At least in normal speech, not in whispering and the like.

⁷ Using the term "interjection" means an anticipation of the discussion of word-classes, to be given in the description of syntax.

III. DESCRIPTION OF THE VOWEL-PHONEMES

1. *i*.

i is a voiced high close front unrounded vocoid. It occurs word-initially, word-medially, and word-finally: *imɨŋ* - face, *inióm* - middle, *darib* - cold, *ki* - woman, *bedi* - old.

It is lowered to high open position

- 1° if immediately followed by the consonant-cluster *mb*: *brimbu* - a field-name, *nimbrouŋ* - squatting;
- 2° if not having an accent and being immediately followed by word-final *ŋ*: *násiŋ* - go away, *mániŋ* - not yet;
- 3° if immediately followed by a second *i* which has no accent⁹: *sii* - squeeze, *biiáb* - good.

Some speakers, very few in number, sometimes replace a word-final *i* which has no accent and is immediately preceded by *i* or *e*, by a voiced back dorso-velar stop [G] and actualize *nángrei* - three, as [nangreG], *iii* - divide, as [jiG], etc.¹⁰

The contrastive value of *i* in opposition to other vowels and zero appears from the following instances¹¹:

<i>isie</i> - forest-hen	<i>esie</i> - rain-drops
<i>iári</i> - casuarina-tree	<i>iáre</i> - source
<i>kení</i> - hearing	<i>kené</i> - liver
<i>ki</i> - woman	<i>ka</i> - out of the way there!
<i>ŋgrin</i> - draw	<i>ŋgran</i> - bumble-fly
<i>píe</i> - scrotum	<i>páe</i> - mutually
<i>hrim</i> - dirty	<i>hrym</i> - companion
<i>sib</i> - place	<i>syb</i> - top

⁸ The concept of accent and the symbol for it (') are introduced here. A discussion of the accent will be found in Ch. VII.

⁹ This is contrary to Trubetzkoy's "4th rule", according to which two related sound-units, occurring in complementary distribution, may not be regarded as allophones of one phoneme, if they occur side by side (N. S. Trubetzkoy, *Grundzüge der Phonologie*, Prague, 1939, p. 46). The rightness of this rule has already been challenged by André Martinet (*Bulletin de la Société de Linguistique de Paris*, XLII, 1946, p. 32).

¹⁰ Most speakers avoid this, because they regard it as an undignified imitation of the Gresi language which is closely related to Nimboran. However, it can be safely assumed that, historically, this final *i* developed from a consonant.

¹¹ Setting against each other words with minimal differences in sound-shape (minimal pairs) is common practice in phonological descriptions. In this way, however, words are placed in a very abnormal position (see: H. Mol and E. M. Uhlenbeck, o.c.).

<i>dekíe</i> - black	<i>dekýe</i> - kind of tree
<i>pri</i> - hit	<i>pro</i> - leaf
<i>mení</i> - other, some	<i>menó</i> - all
<i>di</i> - wood	<i>du</i> - child
<i>hri</i> - descend	<i>hru</i> - man
<i>iári</i> - casuarina-tree	<i>iáru</i> - shoulder
<i>bái</i> - spiral	<i>ba</i> - far
<i>siá</i> - praise	<i>sa</i> - tail
<i>tenián</i> - appear	<i>tenán</i> - true, right

2. *e*.

e is a voiced mid front unrounded vocoid, occurring word-initially, word-medially, and word-finally: *epíe* - tortoise, *kené* - liver, *bekéi* - rise.

It has some allophones, conditioned by its place in the word and by the surrounding phonemes.

If word-final, *e* is actualized as:

- 1° mid close front vocoid [e], if having an accent and not being immediately preceded by *y*, and also if not having an accent and being immediately preceded by an *a* which has an accent, e.g. *bre* - sago-beetle, *reké* - hot, *kié* - time, *káe* - where?, *kuáe* - hedge, fence, *benáe* - fat.

An exception is the *e* of the words *be* (here you are, etc.), *nde* (if, etc.), and *de* (of, etc.) which is usually actualized in mid open front position [ɛ].

- 2° mid central vocoid [ə], if immediately preceded by *y*, and also if it has no accent and is immediately preceded by *i*, having an accent, or by *u*, having an accent. E.g.: *yé* - meat, *dedýe* - inarticulate, *háye* - pepper, *kíe* - hand, *mensúe* - nose.
- 3° mid open front vocoid [ɛ] in all other cases, e.g.: *táne* - with, *háke* - torch.

If not word-final, the distribution of the allophones of *e* is:

- 1° mid open front vocoid [ɛ] in the following cases:
 - a. if it has an accent and is not immediately followed by word-final *y*, e.g.: *matéb* - afraid, *mési* - foot, leg, *ndéi* - root, *méuo* - in front, *kasbéuon* - kind of prey-bird.
 - b. if immediately followed by *i* or word-medial *y*, e.g.: *keitré* - giant taro, *keirú* - barb, *neikáo* - narrow, *teyí* - jump, *meyosúo* - embarrassed, *ieyenín* - caterpillar.

- c. if immediately followed by a consonant or consonant-cluster which is immediately followed by *i* or *y*, e.g. *kebý* - hornbill, *mensý* - navel, *mengyéi* - tie together, *kekiá* - poignant (taste), *benḡimýṅ* - triton-shell.

If the vowel which immediately follows the consonant or consonant-cluster is an *i* which bears an accent, the mid open front vocoid is in free variation with a low close front vocoid [æ], e.g.: *keni* - hearing, *keki* - raw, *mentin* - algae.

- 2° mid close front vocoid [e], if immediately preceded by *a*, e.g.: *benaeskáru* - a field-name, *imokáero* - a field-name.
 3° mid central vocoid [ə] in all other environments, e.g.: *kebó* - net-bag, *méy* - cloud, *mendú* - skull, *ṅgetéy* - rub, *benḡán* - wasp, *ṅgátey* - tattoo-mark.

A relatively small number of speakers — the same as those having a similar pronunciation of the final *i* (see § 1) — actualize word-final *e*, if it has no accent and is immediately preceded by *y*, as a voiced back dorso-velar stop [G], e.g. [ṅgrɪG] for *ṅgrýe*.¹²

The contrastive value of *e* in opposition to other vowels and zero is shown by the following instances (for the opposition *e* - *i* see the examples in the final part of § 1):

<i>me</i> - mother	<i>ma</i> - hand it over!
<i>dem</i> - paddle	<i>dam</i> - eat
<i>iéṅgy</i> - name of a river	<i>iáṅgy</i> - turtle-dove
<i>debúm</i> - unripe	<i>dabúm</i> - joint between head and shaft of an arrow
<i>téy</i> - put down	<i>týe</i> - push
<i>mensé</i> - sister- or brother-in-law	<i>mensý</i> - navel
<i>peb</i> - peel	<i>pyb</i> - stab, stick
<i>me</i> - mother	<i>mo</i> - sago
<i>máre</i> - unconscious	<i>máro</i> - a clan-name
<i>uén</i> - be slightly burned	<i>uón</i> - bird's nest
<i>iré</i> - slanting	<i>irú</i> - bone dagger
<i>iáre</i> - source	<i>iáru</i> - shoulder
<i>ndie</i> - this, that	<i>ndi</i> - dream
<i>epie</i> - tortoise	<i>pie</i> - scrotum
<i>keré</i> - shoring-timber	<i>kre</i> - extinguish

¹² What has been said, in a foot-note to § 1, on a similar case with word-final *i*, applies also here.

3. *a*.

a is a voiced low central unrounded vocoid [a]: it occurs word-initially, word-medially, and word-finally: *apíán* - stop up, *hrap* - shadow, *maréma* - soft.

It is slightly fronted and a bit prolonged, if it is the only vowel of a word and is followed by *m* or *b*, e.g. *tab* - path, road, *mab* - earth, *sam* - letter.

It is slightly backed [a], if word-final and having an accent, e.g. *sa* - tail, *tekuá* - side, *ba* - far.

It is actualized as voiced low back unrounded vocoid [ä], if immediately followed by an *o* which has an accent, e.g. *betaóitiu* - we pull out, *dekaóikam* - they tied together.

It is in free variation with a mid open alternant, if it precedes a vowel which has an accent, and is immediately followed by a consonant, e.g. *tangán* - cord, *iamó* - house.

As examples for the opposition between *a* and *i* and *e* were already given in § 1 and § 2, we here give some instances of minimal pairs showing the opposition between *a* and *y*, *o*, *u*, and zero:

<i>páe</i> - mutually	<i>pýe</i> - set on fire
<i>besám</i> - unwilling	<i>besým</i> - village-name
<i>ka</i> - out of the way there!	<i>ky</i> - faeces
<i>pra</i> - cross over	<i>pro</i> - leaf
<i>íáu</i> - flying-fox	<i>ióu</i> - flat
<i>densián</i> - noon	<i>densión</i> - little finger
<i>ba</i> - far	<i>bu</i> - water
<i>dekáo</i> - tie together	<i>dekúo</i> - enter
<i>asó</i> - name of a river	<i>usó</i> - tadpole
<i>kauáe</i> - choose	<i>kuáe</i> - wound
<i>iamó</i> - house	<i>imó</i> - bamboo

4. *y*.

*y*¹³ is a rather tense voiced high close central unrounded vocoid [i], occurring word-initially, word-medially, and word-finally: *yé* - meat, *yésku* - female cuscus, *nyéi* - stir, *nengýb* - withered, *sy* - name, *debý* - heart.

Some speakers give the *y* a slightly backed articulation. As precisely the same speakers are distinguished by a typical articulation of the *u*

¹³ The symbol *y* has been chosen quite arbitrarily and for practical reasons only.

(see § 6), these two facts are obviously connected. The number of these speakers can not be given; probably they are in a minority.

If *y* has an accent and is immediately followed by *i*, it is less tense and lowered to high open position, e.g. *ɲgetʲidiu* - we shall rub, *ɲgedʲikam* - they attached.

As examples for the opposition between *y* and *i*, *e*, and *a* were given in the §§ 1 to 3, we here only give instances of minimal pairs showing the opposition between *y* and *o*, *u*, and zero:

<i>iʲ</i> - bird	<i>ió</i> - we
<i>kebʲ</i> - hornbill	<i>kebó</i> - netbag
<i>kyn</i> - stoop	<i>kon</i> - set down
<i>iáy</i> - aunt, uncle	<i>iáo</i> - on guard
<i>ky</i> - faeces	<i>ku</i> - time, day
<i>demʲe</i> - dead	<i>demúe</i> - stone
<i>iáry</i> - strong (wind)	<i>iáru</i> - shoulder
<i>méy</i> - cloud	<i>me</i> - mother
<i>káy</i> - a proper name	<i>ka</i> - out of the way there!
<i>kryá</i> - defecate	<i>kra</i> - hunt

5. *o*.

o is a voiced mid back unrounded vocoid, occurring word-initially, word-medially, and word-finally: *opʲámun* - (at) first, *son* - mosquito, *tebáo* - fry, bake, *kaiteró* - border.

The allophones of this phoneme are:

- 1° voiced mid close back unrounded vocoid [ɤ], if the *o* is word-final and has no accent, e.g. *mo* - sago, *bató* - wide, broad.
- 2° voiced mid open back unrounded vocoid, if the *o* has no accent and is immediately preceded by an *u* which has an accent, and also if the *o* has an accent and is immediately followed by a word-final consonant, e.g. *skúo* - crab, *ibúo* - pig, *utób* - star, *betóm* - freckle, mole.
- 3° voiced low close back unrounded vocoid, if the *o* is immediately followed by an *u* which is immediately followed by a word-final consonant, e.g. *ingóun* - prickly, *nímbróun* - squatting.

In all other environments there is free variation between the mid open and mid close allophones, e.g. *mámbrob* - tongue, *demápro* - malaria, *ingáo* - wash, *dipróki* - green, *kuotenán* - little, few.

As the oppositions between *o* and *i*, *e*, *a*, and *y* were demonstrated in the §§ 1 to 4, we here give only some instances of minimal pairs showing the opposition between *o* and *u* and zero:

<i>do</i> - there	<i>du</i> - child
<i>nom</i> - sufficient, enough	<i>num</i> - know
<i>íáo</i> - on guard	<i>íáu</i> - flying-fox
<i>búo</i> - hang out	<i>bu</i> - water
<i>íáuo</i> - kind of frog	<i>íáu</i> - flying-fox

6. *u*.

u is a voiced high close back unrounded vocoid [i] ; it occurs word-initially, word-medially, and word-finally: *uáb* - crawfish, *umíe* - crocodile, *kuirób* - lightning, *múo* - make, *nánteku* - day before yesterday.

u has a high open allophone, used — in all cases — by those speakers who are in the habit of using the backed allophone of *y* (see § 4).

A word-final *u* which has no accent and is immediately preceded by *o*, is actualized as voiced back dorso-velar stop [G] by a minority of speakers,¹⁴ e.g. [spëG] for *spóu* - unloosen.

For examples for the opposition between *u* and other vowel-phonemes the reader is referred to §§ 1 to 5. The opposition between *u* and zero is apparent from minimal pairs like the following:

<i>buá</i> - beat	<i>ba</i> - far
<i>iróu</i> - kind of frog	<i>iró</i> - fill
<i>ruóu</i> - tell	<i>róu</i> - grasp
<i>íuí</i> - kind of fruit	<i>íí</i> - burn.

IV. DESCRIPTION OF THE CONSONANT-PHONEMES.

1. *p*.

p is a voiceless bilabial stop, occurring word-initially, word-medially, and word-finally: *pum* - hole, *pro* - leaf, *krapó* - bad, *dipróki* - green, *pákrup* - lid, *némpo* - day after tomorrow.

The stop is in free variation with a voiceless bilabial fricative [p],

¹⁴ These speakers are the same as those having the [G] as an allophone for word-final *i* and *e* (see § 1 and § 2). The remark made in footnote 10 to § 1 applies also here.

but not if it is word-final or if it is immediately preceded by *m* or *s*. Another case in which *p* can only be a stop, is found in those verbal forms in which final *b* of the root-morpheme concurs with an initial *p* of a morpheme; the resulting *p* is never actualized as a fricative in such a case (see for this: Part Two, II, 8).

If a word has a final *p* and syntactically is closely connected with an immediately following word and if the latter has an initial voiceless stop, the actualization of the *p* may be very lax so that it is scarcely audible, e.g. *kip tekýe* - charcoal.

The opposition between *p* and the other consonants and zero is apparent from the following instances:

<i>pempéin</i> - tremble	<i>bembéin</i> - mud
<i>sip</i> - blunt	<i>sib</i> - place
<i>pab</i> - chest	<i>mab</i> - earth
<i>kyp</i> - lime	<i>kym</i> - coconut
<i>ipó</i> - light (not heavy)	<i>imó</i> - bamboo
<i>péi</i> - pour out	<i>téi</i> - give
<i>práo</i> - occupy oneself	<i>tráo</i> - lift up
<i>páe</i> - mutually	<i>dáe</i> - small, little
<i>páo</i> - soggy soil	<i>náo</i> - break up
<i>pum</i> - hole	<i>num</i> - know
<i>depýe</i> - body hair	<i>dekýe</i> - kind of tree
<i>pri</i> - hit	<i>kri</i> - run away
<i>po</i> - will, must	<i>ŋo</i> - I
<i>kip</i> - fire	<i>kin</i> - blood
<i>peb</i> - peel	<i>reb</i> - drink
<i>iápi</i> - field-name	<i>iári</i> - casuarina-tree
<i>pyb</i> - stab, stick	<i>syb</i> - top, tip
<i>epie</i> - tortoise	<i>esie</i> - raindrops
<i>prin</i> - (to) fly	<i>hrin</i> - worn
<i>prym</i> - wide	<i>hrym</i> - companion
<i>piángu</i> - kind of snake	<i>iángu</i> - turmeric
<i>kip</i> - fire	<i>ki</i> - woman
<i>ipó</i> - light (not heavy)	<i>ió</i> - we

2. b.

b is a voiced bilabial stop; it occurs word-initially, word-medially, and word-finally: *býe* - canoe, *brub* - fold, *kib* - beat, *debúm* - unripe.

If word-final, *b* is always unreleased, or better: nasally released. In this position it may be voiceless; the formal opposition between *b* and *p* then lies in the difference of release, as word-final *p* normally is orally released.

If a word has final *b* and syntactically is closely connected with an immediately following word and if the latter has an initial consonant, the *b* may be very lax so that it is hardly audible, e.g. *bengib dóun* - salt (lit.: sea-kernel).

A small minority of speakers has a habit of actualizing word-final *b* as a voiced labio-velar stop with nasal release.

Opposition between *b* and the other consonants (except *p*, for which see the preceding §) and zero may be seen from the following instances:

<i>bái</i> - spiral	<i>mái</i> - inside
<i>tób</i> - scale	<i>tom</i> - sweet
<i>ibúo</i> - pig	<i>imúo</i> - kind of pigeon
<i>bíe</i> - open	<i>tíe</i> - grub
<i>kebí</i> - stomach	<i>ketí</i> - below
<i>béin</i> - crooked	<i>déin</i> - wing
<i>kabó</i> - field-name	<i>kadó</i> - voilà, there (is)
<i>ban</i> - broken	<i>nan</i> - louse
<i>nu</i> - sight	<i>bu</i> - water
<i>bíe</i> - open	<i>kíe</i> - hand
<i>kebí</i> - stomach	<i>keki</i> - raw
<i>báre</i> - yourself	<i>ṅáre</i> - myself
<i>hrub</i> - suck	<i>hrun</i> - break, crush
<i>bekéi</i> - rise	<i>rekéi</i> - turn
<i>bábu</i> - grandfather	<i>báru</i> - dear
<i>buṅ</i> - wait	<i>suṅ</i> - dust
<i>ibú</i> - sleeping (arm, leg)	<i>isú</i> - shake
<i>baió</i> - name of a song	<i>haió</i> - kangaroo
<i>brun</i> - lower end, bottom	<i>hrun</i> - break, crush
<i>buá</i> - beat	<i>uá</i> - kind of tree
<i>syb</i> - tip, top	<i>sy</i> - name

3. *m*.

m is a voiced bilabial nasal, occurring word-initially, word-medially, and word-finally, e.g. *máre* - unconscious, *demúe* - stone, *hambuán* - tobacco, *mam* - cassowary, *pum* - hole.

If *m* is word-final and not immediately followed by a pause, it is not orally released.

The following minimal pairs may serve as examples for the opposition between *m* and other consonants (except *p* and *b*, for which see § 1 and § 2) and zero:

<i>méndy</i> - mouth	<i>téndy</i> - one
<i>námu</i> - presently	<i>nátu</i> - white bead
<i>méy</i> - cloud	<i>déy</i> - roast
<i>demýe</i> - dead	<i>dcdýe</i> - whispering
<i>miŋ</i> - breast	<i>niŋ</i> - stand
<i>umíe</i> - crocodile	<i>uníe</i> - mythological name
<i>mo</i> - sago	<i>ko</i> - you
<i>iamó</i> - house	<i>iakó</i> - cheerful
<i>mam</i> - cassowary	<i>naŋ</i> - open (mouth)
<i>sum</i> - faded	<i>suŋ</i> - dust
<i>menḡýe</i> - flatus	<i>renḡýe</i> - show
<i>imó</i> - bamboo	<i>iró</i> - fill
<i>ma</i> - hand (it) over!	<i>sa</i> - tail
<i>kemýe</i> - kind of lizard	<i>kesýe</i> - ghost
<i>mení</i> - other, some	<i>hení</i> - ill
<i>máru</i> - tie-beam	<i>háru</i> - kind of arrow
<i>mái</i> - inside	<i>ái</i> - scream
<i>ḡguám</i> - dizzy	<i>ḡguá</i> - wake up
<i>imó</i> - bamboo	<i>ió</i> - we

4. *t*.

t is a voiceless apico-dental stop; it occurs word-initially and word-medially, e.g. *tenánḡ* - right, true, *tetý* - fall off, *tym* - cough.

It is in free variation with voiceless lamino-alveolar stop [tʰ], if immediately followed by *i*, e.g. *tíe* - grub. If this immediately following *i* has no accent and is immediately followed by a vowel, *t* may also be actualized as a voiceless lamino-dental stop [tʰ], e.g. *peitiuá* - old man, *tetiýári* - name of a clan.

For instances of the opposition between *t* and bilabial consonants see the §§ 1 to 3; for the opposition between *t* and the other consonants and zero we give the following examples:

<i>tekám</i> - bead	<i>dekám</i> - step-ladder
<i>mentínḡ</i> - algae	<i>mendínḡ</i> - wall

<i>ŋgetéy</i> - rub	<i>ŋgedéy</i> - attach, fasten
<i>témpo</i> - after three days	<i>némpo</i> - day after tomorrow
<i>ketí</i> - below	<i>kení</i> - hearing
<i>tebuá</i> - short	<i>kebuá</i> - morning
<i>iteká</i> - blood-sucker	<i>ikeká</i> - name of a river
<i>téi</i> - give	<i>ŋéi</i> - tear, split
<i>tekuám</i> - jaw	<i>rekuám</i> - meat
<i>betáo</i> - pull out	<i>beráo</i> - flying stick (kind of locust)
<i>téy</i> - put, lay down	<i>séy</i> - dark
<i>itú</i> - scorpion	<i>isú</i> - shake
<i>tengréin</i> - lead the way	<i>hengréin</i> - thought
<i>tréy</i> - collapse	<i>hréy</i> - abduct, rape
<i>tuóu</i> - cut down	<i>uóu</i> - row
<i>nátu</i> - white bead	<i>náu</i> - warm

5. *d*.

d is a voiced apico-dental stop, occurring word-initially and word-medially, e.g. *desú* - weak, *ndi* - dream, *kudiþró* - animal, *menduáb* - grasshopper.

It is in free variation with a voiced lamino-alveolar stop [dʲ], if it is immediately followed by *i*, e.g. *bedí* - old. If this immediately following *i* has no accent and is immediately followed by a vowel, the *d* may also be actualized as a voiced lamino-domal stop [dʲʷ], e.g. *dió* - gathering, *indiún* - kind of arrow.

As examples for the opposition between *d* and bilabial consonants and *t* were given in the §§ 1 to 4, we here give some instances of minimal pairs for the opposition between *d* and the other consonants and zero:

<i>derí</i> - you will be	<i>nerí</i> - moss
<i>dáo</i> - give (many objects)	<i>náo</i> - break
<i>dáe</i> - small	<i>káe</i> - where?
<i>dí</i> - wood	<i>kí</i> - woman
<i>do</i> - there	<i>ŋo</i> - I
<i>dum</i> - name of a mountain	<i>rum</i> - wooden fork
<i>dam</i> - eat	<i>sam</i> - letter
<i>bedí</i> - old	<i>besí</i> - neck
<i>derím</i> - he will be	<i>herím</i> - he will go
<i>dréy</i> - a kind of stone axe	<i>hréy</i> - rape

dió - gathering

nánde - whose?

ndáo - feel

ió - we

náne - who?

náo - break

6. *n*.

n is a voiced apico-dental nasal; it occurs word-initially, word-medially, and word-finally, e.g. *nánde* - yesterday, *kenái* - above, *ndien* - leaf-vein.

The occurrence of *n* in word-final position is limited to:

the clan-names *uáipon* and *uaisímon*,

the word *namuán* - two,

a number of words in which the final *n* is immediately preceded by the vowel-sequence *úe* or *íe*, e.g. *búen* - lean, *teiyien* - kind of bird.

It is a remarkable fact that no minimal pairs are found for the opposition between *n* and *ɲ* in word-final position. Moreover, final *n* of foreign words which are borrowed by Nimboran is often replaced by *ɲ*, e.g. *sábuɲ* - soap, from Malay *sabun*.

Further, a form *uáiponɲ* occurs as a free alternant side by side with *uáipon*.

In view of all this there might be occasion to consider word-final *n* as an allophone of *ɲ* (or the reverse). This would mean that the opposition between *n* and *ɲ* is neutralized in word-final position. Against this are the following facts:

- 1° Mutual substitution of *n* and *ɲ* — also in word-final position — is felt by Nimboran speakers as the making of new words.
- 2° Only in the case of immediately preceding *úe* or *íe* the occurrence of word-final *n* would be environmentally conditioned.
- 3° Comparison of *namuán* with e.g. *hambuánɲ* (- tobacco) shows the two sound-units in equivalent environments.
- 4° The form *uáiponɲ* (side by side with *uáipon*) is undoubtedly a product of popular etymology: an attempt to invest this name with the meaning "see the sun" (*uái ponɲ*).

For these reasons word-final *n* may best be regarded as a normal form of the phoneme *n*, although of limited occurrence.

n is in free variation with a voiced lamino-alveolar nasal [nʷ], if immediately followed by *i*, e.g. *mení* - other, some. The lamino-alveolar allophone always occurs, if the *n* is immediately followed by the lamino-

alveolar allophone of *t*, *d*, or *s* (see § 11), e.g. *mentín* - algae, *ndíe* - this, that, *ánsin* - come here!

If *n* is immediately followed by an *i* which has no accent and is immediately followed by a vowel, besides the lamino-alveolar allophone, already mentioned, also a voiced lamino-domal nasal [ɲʷ] occurs in free variation, e.g. *minie* - before, *inióm* - middle. The lamino-domal allophone always occurs, if *n* is immediately followed by the lamino-domal allophone of *t*, *d*, or *s* (see § 11), *intiým* - screen, cover, *indió* - mother, *insiúm* - mouse.

As examples for the opposition between *n* and the bilabial consonants, *t*, and *d* are given in the §§ 1 to 5, we here give some instances of minimal pairs, showing the opposition between *n* and the other consonants and zero:

<i>nab</i> - spirit	<i>kab</i> - game
<i>manó</i> - mythological name	<i>makó</i> - mode of procedure, custom
<i>no</i> - he, she, it, they	<i>ño</i> - I, we
<i>nan</i> - louse	<i>ñan</i> - open (mouth)
<i>násin</i> - go away	<i>rásin</i> - come into contact
<i>hení</i> - ill	<i>herí</i> - you will go
<i>náo</i> - break	<i>sáo</i> - chase away
<i>nu</i> - sight	<i>su</i> - walk on!
<i>náku</i> - yolk	<i>háku</i> - areca-nut
<i>nandán</i> - theft	<i>handán</i> - try
<i>ndi</i> - dream	<i>di</i> - wood
<i>mensý</i> - navel	<i>mesý</i> - small bead
<i>náne</i> - who?	<i>nác</i> - sale

7. *k*.

k is a voiceless dorso-velar stop, occurring word-initially and word-medially, e.g. *krom* - grindstone, *karéy* - quagmire, *báky* - dance, *keikáo* - narrow.

k is slightly fronted, if it immediately precedes *i* or *e*, e.g. *keki* - raw, *kíc* - hand, *iakéy* - crumble.

Word-initial *k* may be rather lax, if the word in question is syntactically closely connected with the immediately preceding word and the latter has a final vowel, e.g. *di kekuýe* - bush, shrub.

As examples for the opposition between *k* and the bilabial and apico-dental consonants are found in the §§ 1 to 6, we here give some

minimal pairs, showing the opposition between *k* and the other consonants and zero:

<i>priptemɛŋkɛty</i> - I am repeatedly throwing here	<i>priptemɛŋgɛty</i> - I am repeatedly throwing below ¹⁵
<i>ko</i> - you	<i>ŋo</i> - I, we
<i>kaŋ</i> - emaciated	<i>ŋaŋ</i> - open (mouth)
<i>kekí</i> - raw	<i>rekí</i> - ginger
<i>takuáb</i> - portion	<i>taruáb</i> - morning star
<i>kib</i> - beat	<i>sib</i> - place
<i>koŋ</i> - put	<i>soŋ</i> - mosquito
<i>kení</i> - hearing	<i>hení</i> - ill
<i>krym</i> - noise	<i>hrym</i> - friend
<i>kuáb</i> - bird's tail	<i>uáb</i> - crawfish
<i>iáky</i> - buttocks	<i>iáy</i> - uncle, aunt

8. *g*.

g is a voiced dorso-velar stop which is very much limited in its combinability with other phonemes. It is a bit fronted, if it is immediately followed by *e* or *i*, e.g. *ŋgesím* - roll up, *bɛŋgíb* - sea.

g only occurs

word-medially, preceded by *ŋ* or — less frequently — by *m*, e.g. *ŋgyŋ* - fall, *bɛŋgán* - wasp, *damgóu* - yawn.

word-initially in *ge* which never occurs sentence-initially and also otherwise is limited in its possibilities of occurrence (see Ch. VIII, § 3).

The result of this limited occurrence of *g* is that minimal pairs, showing the opposition between *g* and any other consonant, are of extreme rarity. Instances of contrast in similar environment are more easily found, e.g. *nɛŋki* - his wife, *bɛŋgíb* - sea. An instance of opposition with zero is *ŋgaŋ* - construct (a wall), vs. *ŋaŋ* - open (mouth).

Yet there is no reason for the assumption that *g* is not a separate phoneme, for it does not occur in complementary distribution to any other speechsound and is not interchangeable with any other speechsound. This last statement seems to be contradictory to the fact that some verb-forms occur with *k* as well as with *g* without any difference

¹⁵ For a difficulty with such cases of opposition between *k* and *g* in verb-forms, see § 8.

in meaning (instances of this are given in Part Two, Ch. II, § 44). These, however, must be regarded as different forms, as other verb-forms, fully comparable with those in question, have *g* but never have *k* (cf. the difference between forms of the 1st and those of the 3^d Position-Category in the § mentioned above).¹⁶

9. *ŋ*.

ŋ is a voiced dorso-velar nasal; it occurs word-initially, word-medially, and word-finally, e.g. *ŋáre* - myself, *ŋgyn* - fall, *indionŋéirum* - Jew's harp.

It is fronted, if immediately followed by *i* or *e* or by a *k* or *g* which is fronted because of an immediately following front vowel (see § 7 and § 8), and also if word-final and immediately preceded by *i*, e.g. *ŋéi* - tear, rend, *ŋgie* - resin, *ŋgesín* - wipe off, *usín* - say, *tengéin* - cut.

If *ŋ* is word-final and the immediately preceding vowel is *a*, this *a* is nasalized [ã]. The same may happen to *o* or *u*, if immediately preceding a word-final *ŋ*, but then only as a free variant. With some speakers word-final *ŋ*, preceded by a nasalized vowel, is practically inaudible so that the *ŋ* is mainly represented by the nasalized quality of the preceding vowel. E.g. *tangán* - string, *urán* - long, *temún* - remainder, *son* - mosquito.

As the opposition between *ŋ* and other consonants has been discussed already in the preceding §§, we here give some instances of minimal pairs for the opposition between *ŋ* and *r*, *s*, *h*, and zero:

<i>ŋo</i> - I, we	<i>ro</i> - wash
<i>ŋyéi</i> - stir	<i>syéi</i> - kind of fibre
<i>ŋaió</i> - father	<i>haió</i> - kangaroo
<i>baŋ</i> - broken	<i>ba</i> - far
<i>ŋuáronŋ</i> - fibrous husk of coconut	<i>uáronŋ</i> - nail

10. *r*.

r is a voiced apico-alveolar vibrant; it occurs word-initially and word-medially, e.g. *karónŋ* - thorn, *ŋgranŋ* - bumble-fly, *kekruáb* - white, *rerínŋ* - push, shove.

¹⁶ I.a. comparison with related languages makes it very plausible that *g* originally was only an allophone of *k*. But this is a historical question which can be very well left out of discussion here, because now the relation between *k* and *g* is different.

The allophones of *r* are :

- 1° voiced lateral apico-domal flap [l] in free variation with voiced apico-alveolar flap [ɾ], but with preference for the first, if immediately followed by *i*, *e*, or *y* and immediately preceded by *e*, *i*, or *h* and also if being word-initial and immediately followed by *e*, *i*, or *y*; e.g. *emberekáse* - maize, *herikenúm* - purple, *hri* - go down, *hrym* - friend, *iré* - slanting, sloped, *irýb* - camouflaged hunting-box in a tree, *reb* - drink.
- 2° voiced apico-alveolar flap [ɾ] in free variation with voiced apico-alveolar trill [r] in all other environments with preference for the flapped allophone, except if immediately preceded by *k* or *g* in which case the trilled allophone is preferred; e.g. *nárob* - rubbish, *hrap* - shadow, *iáre* - source, *prin* - fly, *krym* - sound, *pákrup* - lid, cover, *nángrei* - three.

As the opposition between *r* and all consonants other than *s* and *h* has been discussed in the §§ 1 to 9, here instances are given of minimal pairs for the opposition between *r* and *s*, *h*, and zero only :

<i>ráo</i> - sleep	<i>sáo</i> - drive away
<i>irú</i> - bone dagger	<i>isú</i> - shake
<i>máre</i> - unconscious	<i>máse</i> - vomit
<i>ráye</i> - a personal name	<i>háye</i> - 1° a (different!) personal name
	2° red pepper
<i>krúoráru</i> - I will bury him (here)	<i>krúoháru</i> - I will bury (it, her) there
<i>iáru</i> - shoulder	<i>iáu</i> - flying-fox
<i>ruóu</i> - tell, inform	<i>uóu</i> - row

11. s.

s is a voiceless apico-dental grooved fricative (rill-spirant), occurring word-initially and word-medially, e.g. *sy* - name, *besám* - unwilling, *skin* - ripe.

It is in free variation with voiceless lamino-alveolar grooved fricative [sʔ], if immediately followed by *i*, e.g. *besíb* - bend, and at the same time with voiceless lamino-domal grooved fricative [ʃʔ], if immediately followed by an *i* which has no accent and is immediately followed by a vowel, e.g. *densilán* - noon, *insiúm* - mouse, *isiú* - shake.

As the relation between *s* and *h* will be discussed in the next § and the opposition between *s* and the other consonants was shown in the §§ 1 to 10, only the following examples are given here, demonstrating the opposition between *s* and zero:

<i>siánʒ</i> - young man	<i>íánʒ</i> - ask
<i>skie</i> - deep	<i>kie</i> - hand
<i>spóu</i> - undo	<i>póu</i> - blow
<i>usó</i> - tadpole	<i>uó</i> - nest

12. *h*.

h is a voiceless glottal fricative, occurring word-initially and — only in some verbal and pronominal forms and in some names — word-medially. If word-initial and immediately followed by *ʒ* or *n*, it may be actualized as a voiceless nasal of the same point of articulation as the following nasal, so [ɲ] or [N] respectively; e.g. *hʒári* - bird of paradise, *hnanʒ* - louse, *hnum* - know.

But many speakers (probably even a majority) never pronounce word-initial *h* which is immediately followed by *ʒ*, *n*, or *r*, and say *ru* for *hru* - man, etc. Therefore one might say that these speakers have zero as an allophone of *h* in this environment. But this reasoning would do no justice to the fact that the speakers in question do not have any opposition between words like:

<i>hnanʒ</i> - louse,	and	<i>nanʒ</i> - straddle-legged,
<i>hno</i> - a place-name,	and	<i>no</i> - he, she, they,
<i>hráo</i> - carry,	and	<i>ráo</i> - sleep,

so that for them these pairs of words are just homophonous forms, whereas an opposition between them does exist for the other speakers. In fact this is a question of coexistence of an older¹⁷ phase, in which there is opposition between *hʒ*- and *ʒ*-, between *hn*- and *n*-, and between *hr*- and *r*-, and a later phase, in which these oppositions do not exist, so that more homophonous words are found. The line, separating these two phases, lies in between individual speakers,¹⁸

¹⁷ It is not without reluctance and only for want of better terms, that we introduce words like "older" and "later" here in our description. Still, we are fully convinced that, historically, these terms are right, all the evidence, produced by comparison with closely related languages, pointing in this direction.

¹⁸ We got the impression that the older phase is found mostly with older speakers, but the dividing line between the two phases certainly does not coincide precisely with difference of age.

although it is certainly not beyond possibility that the same speakers use forms of both phases alternately.

As the opposition between *h* and the other consonants, except *s*, has been discussed in the §§ 1 to 10, it remains to speak of the opposition between *h* and *s* and that between *h* and zero.

As to the opposition between *h* and zero, just now we saw that in certain environments this opposition is not found with all speakers. The remaining cases of word-initial *h* are those in which *h* is immediately followed by a vowel. But words having initial *h*, immediately followed by *i*, *y*, or *u*,¹⁹ do not occur, whereas words having initial *e*, *a*, or *o* are very few in number, so that the possibility for minimal pairs is extremely limited. The only instance found is that of *hámbon* - horn, and *ámbon* - Ambon, Ambonese (a loanword). Another proof for the existence of the opposition is given by the fact, that dropping an initial *h* (which is immediately followed by a vowel) may affect the recognizability of the word in question: the (non-existing) word "*áke*" would not be accepted by any speaker of Nimboran as being identical with *háke* - torch, but is felt to be different.

Instances of opposition between *h* and zero in word-medial position are found in verb-forms, e.g.

tengánhake - you knocked there *tengánake* - you knocked below.

More intricate is the question of *s* and *h*. No minimal pairs are found showing the opposition between these consonants. And not only that, but some words having *s* occur side by side with words having the same meaning and the same form except for *h* instead of *s*. These cases are:

semín and *hemín* - food

sne and *hne* - breathless, panting

sengó and *hengó* - only

senán and *henán* - traditional, holy

so and *ho* - to, in regard to; also the pronominal forms corresponding to this,²⁰ e.g. *kómso* and *kómho* - to you.

a number of proper names, e.g.

¹⁹ An exception is the interjection *húí*. But there are more instances of interjections deviating from normal rules of phonological structure (see Ch. II, § 3, and Ch. VI, § 14).

²⁰ See Part Two, Ch. V, § 6.

sàmongrán or *hàmongrán* - name of a village
sangái or *hangái* - name of a village
sno or *hno* - name of an abandoned village
buserái or *buherái* - name of an old, magical bowl.

some verb-forms,²¹ e.g.

nguásáku and *nguáháku* - I bit there.

These facts might give rise to the thought that *s* and *h* are not separate phonemes but only allophones of one phoneme. However, this is contradicted by the following facts:

1° It is impossible to give a rule in terms of environment for the occurrence of *s* or *h*, as they occur in similar environments, e.g.

<i>habán</i> - firm	<i>sabó</i> - ship
<i>haió</i> - kangaroo	<i>saiángu</i> - rainy season.

2° Except in the cases, mentioned above, *s* and *h* are not interchangeable. One is not allowed to say “*ham*” instead of *sam* - letter, or “*sabúm*” instead of *habúm* - son, because Nimboran hearers would regard these as different words.

For these reasons it appears to be right to consider *h* and *s* as separate phonemes and treat the word-pairs, referred to above, as instances of word-alternants (for which see Ch. VIII).²²

V. VOWEL-SEQUENCES

1. The mutual combinability of vowel-phonemes.

Sequences of two or more vowels are of frequent occurrence and show great variety. In principle, any vowel may immediately follow any vowel, with the following exceptions:

²¹ See Part Two, Ch. II, § 15 and § 25, and Ch. III, § 2 and § 8.

²² Historically, however, *s* and *h* are not inconnected. There is evidence showing that not very long ago they were conditioned allophones of one and the same phoneme, as it is still the case in some languages, related to Nimboran. But this may very well be left out of account in a description of the language as it is now.

- 1° A sequence of two identical vowels is only possible with the high vowels; so *ií*, *yy*, and *uu* are possible, whereas *ee*, *aa*, and *oo* do not occur.
- 2° Sequences of two mid vowels (*eo* or *oe*) do not occur.
- 3° *y* can not immediately follow *o*.
- 4° Sequences of more than five vowels are not found.

In the following §§ instances of the various vowel-sequences will be given, arranged under the heading of their first vowel.

2. Vowel-sequences beginning with *i*.

- (*ií*) *tríi* - break, *ií* - burn, *iniím* - new.
- (*iíi*) *iíi* - distribute.
- (*iíe*) *síie* - blister, *iniie* - father.
- (*iia*) *biáb* - good.
- (*ie*) *ienó* - village, *kíe* - hand, *tebíe* - mention, *temíen* - big, *kieróm* - toy, *kié* - time.
- (*ieí*) *iéi* - poignant (taste).
- (*ieyi*) *iéyi* - name of a clan.
- (*ieye*) *ieyenín* - caterpillar.
- (*icuo*) *iniéuo* - relative on one's mother's side.
- (*iy*) *iy* - bird, *itíymbi* - kind of bat, *mániym* - point, tip.
- (*iyi*) *iyindán* - name of a river.
- (*iyé*) *iyé* - wave, signal.
- (*iya*) *tendiyám* - alike, *krendiyá* - entangled.
- (*ia*) *iám* - over, finished, *iakó* - gay, *siá* - praise, *némia* - his (her, their) mother.
- (*iai*) *ngiái* - name of a clan.
- (*iaiy*) *iáy* - aunt, uncle.
- (*iau*) *iáu* - flying-fox, *iáuŋ* - name of a clan.
- (*iaua*) *iaúa* - grown-up, big.
- (*iauuo*) *iauío* - personal name.
- (*iauo*) *iáuo* - kind of frog, *iauíoŋ* - kind of yellow bead.
- (*iao*) *iáo* - on guard, *tekiáo* - break open, *itiaokrú* - mythological name.
- (*iú*) *iú* - get away!, *insíúm* - mouse, *iúmurú* - name of a hill.
- (*iúi*) *iúi* - kind of fruit.
- (*iua*) *iúárom* - dry soil, *mensiúa* - whistling.
- (*iuai*) *singriuí* - name of a village.

- (*iuo*) *pásiuo* - hoe.
 (*io*) *ió* - we, *densión* - little finger, *indionéirum* - Jew's harp.
 (*ioia*) *nióiam* - half.
 (*iou*) *ióu* - flat.

3. Vowel-sequences beginning with *e*.

- (*ei*) *préi* - sow, *bembéin* - mud, *nángrei* - three, *keikáo* - narrow.
 (*ein*) *méiu* - name of a village.
 (*ey*) *iakéy* - crumble, *ngatéy* - tattoo-mark.
 (*eyi*) *teyí* - jump.
 (*eyie*) *teyíen* - kind of bird.
 (*eyo*) *meyosúo* - self-conscious.
 (*ea*) *meám* - a field-name, *iambeápdi* - name of a clan.
 (*eue*) *méue* - forehead, *béue* - personal name.
 (*eua*) *kapeuám* - kind of snake.
 (*euo*) *méuo* - in front, *kasbéuon* - kind of prey-bird.

4. Vowel-sequences beginning with *y*.

- (*yi*) *ngetyítiiu* - we rub.
 (*ya*) *nensyiáb* - family-group of the husband.
 (*yio*) *yío* - personal name, *yíodi* - name of a kind of tobacco.
 (*ye*) *tekýe* - charcoal, *usyéb* - bandicoot, *yé* - meat, *namýene* - to whom?.
 (*yei*) *takryéi* - quarrel, *tyéin* - even out.
 (*yy*) *yý* - rise again.
 (*ya*) *ýa* - select, *yá* - a field-name, *kamsyári* - mythological name.
 (*yua*) *yuá* - for to seek.
 (*yue*) *yué* - for to wave.

5. Vowel-sequences beginning with *a*.

- (*ai*) *bái* - spiral, *kaiteró* - outside, *práisi* - charm, magic.
 (*aii*) *káiin* - cloth.
 (*aia*) *daiáb* - fin, *uansáia* - kind of white bead.
 (*aiao*) *kaiáo* - personal name.
 (*aio*) *ndaió* - mother, *haió* - kangaroo.
 (*ae*) *dáe* - small, *benaeskáru* - a field-name.
 (*ay*) *dáy* - hard, *káy* - a personal name.
 (*aye*) *háye* - red pepper, *ráye* - a personal name.
 (*ayei*) *tayéi* - unearth.

(au)	<i>kenáu</i> - sitting, <i>sáum</i> - kind of tree.
(aue)	<i>dauém</i> - insolent.
(auei)	<i>sundauéin</i> - kind of bird.
(auy)	<i>kauydú</i> - kind of bird, <i>tranjáuy</i> - kind of small bird.
(aua)	<i>tauá</i> - look back, <i>bauakróŋ</i> - mythological name.
(auai)	<i>tauái</i> - wooden spoon.
(auae)	<i>kauáe</i> - select.
(auao)	<i>kauáo</i> - friar bird.
(auue)	(<i>skiá</i>) <i>tauúe</i> - joint (burst of laughter).
(auuo)	<i>kauúo</i> - sky, <i>hauúo</i> - personal name.
(auo)	<i>mindauó</i> - kind of small shell, <i>nauón</i> - light, clear, <i>táuo</i> - kind of green or blue bead.
(ao)	<i>kráo</i> - sweep, <i>maokrí</i> - mythological name.
(aoi)	<i>dekaóitiu</i> - we bind together, <i>kraóikam</i> - they demolished.

6. Vowel-sequences beginning with u.

(ui)	<i>húi</i> - ow! o dear!, <i>uib</i> - kind of root-crop, <i>kúisu</i> - earthquake, <i>kuirób</i> - lightning.
(uie)	<i>uaruiéri</i> - mythological name.
(uia)	<i>kuiám</i> - time of the day, <i>uía</i> - kind of tree.
(uio)	<i>uió</i> - personal name.
(ue)	<i>demúe</i> - stone, <i>takuém</i> - crooked, <i>uendí</i> - tomorrow, <i>temakué</i> - kind of vegetable.
(uei)	<i>iakuéi</i> - mountain apple (<i>Eugenia</i>), <i>tenguéin</i> - belly.
(ueia)	<i>ueián</i> - kind of small parrot, lory.
(uey)	<i>uéy</i> - name of a (mythological) village.
(uye)	(<i>dí</i>) <i>kekuýe</i> - shrub.
(ua)	<i>uáron</i> - nail, <i>banéinguan</i> - spider, <i>kebuá</i> - morning, <i>tabúa</i> - source.
(uai)	<i>uái</i> - sun, <i>nguáin</i> - turbid, <i>uaiþuá</i> - worm.
(uaiua)	<i>uaiuári</i> - mythological name.
(uae)	<i>kuáe</i> - wound, <i>kuáebu</i> - field-name.
(uau)	<i>uáu</i> - rasp, <i>menduáu</i> - kind of bird.
(uauy)	<i>uauý</i> - take along.
(uao)	<i>ngruáo</i> - string (leaves).
(uu)	<i>uún</i> - fan.
(uuo)	<i>uúo</i> - thing, goods, <i>uuó</i> - for to plant, dibble.
(uouu)	<i>uuóu</i> - for to paddle.
(uo)	<i>kamtúo</i> - cheek, <i>uó</i> - bird's nest, <i>tákuo</i> - shell, <i>iáŋuon</i> - personal name.

- (*uoi*) *uóitiu* - we row, *tuóikam* - they cut down.
 (*uou*) *kuóu* - faded, withered, *nembruóunʒ* - Nimboran, *uouprí* - mythological name.

7. Vowel-sequences beginning with *o*.

- (*oi*) *dói* - money.
 (*oi̯*) *iaŋgodemó̯i̯b* - dwarf.
 (*oia*) *demoiáku* - war-medicine, *maroiáb* - name of a garden.
 (*oa*) *oá* - name of a river, *iroá* - ulcer, sore, *kontroási* - field-name.
 (*oai*) *tamtó̯ai* - kind of bamboo, *moái̯b* - name of a river.
 (*ou*) *póu* - blow, *tróunʒ* - bud, sprout, *nimbrounʒ* - squatting.
 (*oue*) *próuem* - pick-axe.
 (*oua*) *brouári* - mythological name.

VI. CONSONANT-SEQUENCES

1. The mutual combinability of consonants.

The mutual combinability of the consonant-phonemes is much more limited than that of the vowel-phonemes. With some consonants only a few combinations occur, whereas others, e.g. *m* and *n* appear to have more possibilities. Concerning the occurrence or non-occurrence of consonant-sequences there are only three general rules, applying to all consonants. These rules are:

- 1° a consonant-sequence can never be word-final.
- 2° sequences of more than three consonants do not occur; the only exception is *hngr* (see below, § 13).²³
- 3° a sequence of two identical consonants does not occur. Consequently in all polymorphematic words, in which such a sequence could be expected on account of the constituent morphemes, only one consonant is found (for instances of this see Part Two).

As with these three negative rules not everything is said, we still have to survey the various consonant-sequences found. They will be arranged under the heading of the first consonant.

²³ But this exception is not found with all speakers (see Ch. IV, § 12).

2. Consonant-sequences beginning with *p*.

p can be immediately followed by *t*, *k*, *r*, or *s*.

pt occurs only word-medially in verb-forms, e.g. *péptu* - I peel.

pk occurs only word-medially in verb-forms, e.g. *prípkum* - she threw.

pkr occurs only word-medially in verb-forms, e.g. *kyépkresántum* - they two wave from there to here.

pr occurs word-initially and word-medially, e.g. *próun* - splinter, *uáiprom* - kingfisher.

pr may be immediately preceded by *m* (see § 4) or by *s* (see § 12).

ps occurs only word-medially, mainly in verb-forms, e.g. *brúpsáke* - you folded there, *iapsenáŋ* - name of a clan.

psk occurs only word-medially, mainly in verb-forms, e.g. *kípskátam* - he beats there repeatedly, *kúpskin* - heart.

3. Consonant-sequences beginning with *b*.

b can be immediately followed by any other consonant, except *p* or *g*.

bm occurs only word-medially in verb-forms, e.g. *príbmambetám* - you and I throw up from here.

bt occurs only word-medially in verb-forms; preferably it is replaced by *pt*, e.g. *brúbte* - you fold (more frequently: *brúpte*).

bd occurs only word-medially in verb-forms, e.g. *besíbdú* - I will bend.

bn occurs only word-medially in verb-forms, e.g. *pýbnákam* - he pricked far away.

bk occurs only word-medially in verb-forms and is preferably replaced by *pk*, e.g. *pýbkum* - she pricked (more frequently: *pýpkum*).

bŋ occurs only word-medially in verb-forms, e.g. *pébŋáke* - you peeled below.

br occurs word-initially and word-medially, e.g. *brob* - sweet, *bebruibám* - heron.

br can be immediately preceded by *m* (see § 4).

bs occurs only word-medially in verb-forms; it is preferably replaced by *ps*, e.g. *kíbsáku* - I hit there (more frequently: *kípsáku*).

bh occurs only word-medially in verb-forms, e.g. *pýbháre* - you will prick there.

4. Consonant-sequences beginning with *m*.

m can be immediately followed by any other consonant.

- mp* occurs only word-medially, e.g. *ném̃po* - day after tomorrow, *pemp̃éiŋ* - tremble.
- mpr* occurs only word-medially, e.g. *suám̃priŋ* - ant, *pemp̃riáŋ* - sprawl.
- mb* occurs word-initially and word-medially, e.g. *mbáreŋ* - loin-cloth, *nemb̃ie* - wind.
- mbr* occurs word-initially and word-medially, e.g. *mbr̃iŋ* - hinterland, *mám̃brob* - tongue.
- mt* occurs only word-medially, e.g. *kamtúo* - cheek, *tamtóái* - kind of bamboo.
- md* occurs only word-medially, e.g. *demamdó* - grandchild, *sám̃du* - I shall put into.
- mn* occurs only word-medially in verb-forms, e.g. *dám̃nákam* - he ate far away.
- mk* occurs only word-medially, mainly in verb-forms, e.g. *krebém̃ku* - a field-name, *dám̃ku* - I ate.
- mkr* occurs only word-medially in verb-forms, e.g. *kým̃krekátam* - they will burn repeatedly.
- mg* occurs only word-medially, mainly in verb-forms, e.g. *ŋguátém̃gétim* - he is biting repeatedly, *damgóu* - yawn.
- mŋ* occurs only word-medially in verb-forms, e.g. *dám̃ŋáku* - I ate below.
- mŋg* occurs only word-medially in verb-forms, e.g. *priptém̃ŋgéki* - you were throwing repeatedly below.
- mr* occurs only word-medially, mainly in verb-forms, e.g. *dám̃ratúm* - it is eaten, *amrika* - America, American.
- ms* occurs only word-medially, e.g. *dem̃s̃iŋ* - uncooked, *iám̃son* - kind of fruit (*artocarpus integra*).
- mst* occurs only word-medially, e.g. *im̃stúm* - name of a village.
- msk* occurs only word-medially in verb-forms, e.g. *dám̃skákam* - he ate there repeatedly.
- mh* occurs only word-medially in polymorphematic words, e.g. *dám̃háru* - I will eat there, *ŋám̃ho* - to me, to us.

5. Consonant-sequences beginning with *t*.

t can be immediately followed only by *r*.

tr occurs word-initially and word-medially, e.g. *trañ* - call, *keitré* - giant taro.

tr can be immediately preceded by *n* (see § 7).

6. Consonant-sequences beginning with *d*.

d can be immediately followed only by *r*.

dr occurs word-initially and word-medially, e.g. *dróu* - bath, *sukudréi* - kind of bird.

dr can be immediately preceded by *n* (see § 7).

7. Consonant-sequences beginning with *n*.

n can be immediately followed by *t*, *d*, or *s*.

nt occurs only word-medially, e.g. *nánteku* - day before yesterday, *mentin* - algae.

ntr occurs only word-medially, e.g. *dantrú* - kind of tree, *kontroási* - a field-name.

nd occurs word-initially and word-medially, e.g. *ndop* - aching, *kandóun* - hip.

ndr occurs only word-medially, e.g. *méndro* - flag.

ns occurs only word-medially, e.g. *densián* - noon, *mensúe* - nose.

nsk occurs only word-medially, e.g. *nénskin* - older brother, *inskúo* - fowling-arrow.

nsr occurs only word-medially, e.g. *insrin* - frown.

8. Consonant-sequences beginning with *k*.

k can be immediately followed only by *r*.

kr occurs word-initially and word-medially, e.g. *krým* - noise, *kakrá* - dead.

kr can be immediately preceded by *p* (see § 2), by *m* (see § 4), by *ŋ* (see § 10), and by *s* (see § 12).

9. Consonant-sequences beginning with *g*.

g can be immediately followed by *r*, but as this occurs only if the *g* is immediately preceded by *ŋ*, this case will be mentioned in the next §.

10. Consonant-sequences beginning with *ŋ*.

ŋ can be immediately followed by any other consonant except *m*.

ŋp occurs only word-medially in verb-forms, but is preferably replaced by *mp*, e.g. *ŋgrúnpu* - I hung up (more frequently: *ŋgrúmpu*).

ŋb occurs only word-medially in verb-forms. Preferably it is replaced

by *mb*, e.g. *nggrúmbáru* - I will hang up above (more frequently: *nggrúmbáru*).

nt occurs only word-medially in verb-forms; it is preferably replaced by *nt*, e.g. *nggrúntu* - I hang up (more frequently: *nggrúntu*).

nd occurs only word-medially in verb-forms and is preferably replaced by *nd*, e.g. *nggrúndu* - I will hang up (more frequently: *nggrúndu*).

nn occurs only word-medially, e.g. *minnánteku* - three days ago.

nk occurs only word-medially, e.g. *henínkenó* - what?, *nénki* - his wife.

ñkr occurs only word-medially, e.g. *uánñkru* - a field-name.

ng occurs word-initially and word-medially, e.g. *ngéin* - forget, *dángu* - near.

ng can be immediately preceded by *m* (see § 4) or by *h* (see § 13).

ngr occurs word-initially and word-medially, e.g. *nggran* - bumble-fly, *dúngriñ* - frog.

ngr can be immediately preceded by *h* (see § 13).

nr occurs only word-medially, e.g. *namánñreb* - shallow, *suánñrátu* - I pour upon him.

ns occurs only word-medially in verb-forms; it is preferably replaced by *ns*, e.g. *nggrúnsáru* - I will hang up there (more frequently: *nggrúnsáru*).

nsk occurs only word-medially in verb-forms; preferably it is replaced by *nsk*, e.g. *tengáñskátam* - he knocks there repeatedly (more frequently: *tengáñskátam*).

ñh occurs only word-medially in verb-forms, e.g. *tengáñhákam* - he knocked there.

11. Consonant-sequences beginning with *r*.

r can be immediately followed by *m*, *t*, or *n*. None of these sequences occurs very frequently.

rm occurs only word-medially, e.g. *sarmái* - name of a village.

rt occurs only word-medially, e.g. *kuartakuém* - kind of grass.

rn occurs only word-medially, e.g. *ornáñin* - sweet-potato.

12. Consonant-sequences beginning with *s*.

s can be immediately followed by *p*, *b*, *m*, *t*, *n*, or *k*. It may immediately precede *r*, but only if the *s* is immediately preceded by *n* (see § 7).

sp occurs only word-initially, e.g. *spóu* - unloosen.

spr occurs only word-initially, e.g. *spron* - name of a river.

sb occurs word-initially and word-medially, e.g. *sbi* - sago-basket, *kasbéuon* - kind of big prey-bird.

sm occurs only word-medially, e.g. *kasmándo* - name of a clan.

st occurs only word-medially, e.g. *pésta* - feast (loan-word).

st can be immediately preceded by *m* (see § 4).

sn occurs only word-initially, e.g. *sne* - breathless, panting, *sno* - name of an abandoned village.

sk occurs word-initially and word-medially, e.g. *skom* - bread-fruit, *yésku* - female cuscus.

sk can be immediately preceded by *p* (see § 2), by *m* (see § 4), by *n* (see § 7), or by *ŋ* (see § 10).

skr occurs only word-initially, e.g. *skréy* - shake.

sr occurs only if *n* immediately precedes (see § 7).

13. Consonant-sequences beginning with *h*.

h can be immediately followed by *n*, *ŋ*, or *r* (but cf. what was said about this in Ch. IV, § 12). Consonant-sequences beginning with *h* occur only word-initially.

hn, e.g. *hnan* - louse, *hnum* - know.

hŋ, e.g. *hŋári* - bird of paradise.

hŋg, e.g. *hŋgi* - name of a village.

hŋgr, e.g. *hŋgri* - name of a village.

hr, e.g. *hrap* - shadow, *hri* - descend.

14. Extra-systematical consonant-sequence.

In Ch. II, § 3, is discussed the occurrence — under very limited conditions — of extra-systematical phonemes. Under similar conditions, viz. only in an interjection, a consonant-sequence is found as the only constituent of a word: *st* - a cry for shooing away dogs or poultry. As here the *s* is sustained longer than usual, (s:t) would be a more accurate spelling.

VII. THE ACCENT

1. Description of the accent.

The accent is a quality of vowels and consists of a pitch, higher than that of the other vowel(s) of the same word, usually combined with a higher degree of loudness (stress). As this higher degree of loudness is not always heard, it apparently is less essential than the

high pitch is, but the stress is observable in the majority of cases and therefore it must be mentioned here.

The symbol we use for the accent in writing is an acute (') over the vowel that has the accent.

Most words have one and only one accent; exceptions to this rule will be discussed separately below. If a word contains only one vowel, this vowel can be said to have an accent, although this only appears from comparison with the pitch (and loudness) of the vowels of surrounding words, if any.²⁴ So in a word there usually is one vowel, and that always the same, which has the accent. However, there is no rule by which the place of the accent in all words is determined.²⁵

2. The structural function of the accent.

The structural function of the accent includes:

- 1° distinctive value for words. This only applies to plurivocalic words, because in these the place of the accent is as distinctive as the character and order of the constituent phonemes are. This distinctive value is, once more, most clearly demonstrated by minimal pairs, in this case pairs of words consisting of the same phonemes in the same order but different in the place of their accent. Out of the — relatively few — cases of such minimal pairs we give the following instances:

<i>kíe</i> - hand	<i>kié</i> - time
<i>mére</i> - ourselves	<i>meré</i> - kind of fruit
<i>síe</i> - citronella grass	<i>sié</i> - twist
<i>tébu</i> - silent	<i>tebú</i> - (cigarette-)stub.

- 2° distinguishing the word as such. As the place of the accent in the word-form is not determined by the word-form itself, the accent can not act as a real border-marker. But from the number of accentuated vowels in an utterance the hearer obtains an idea of the number of words in the utterance. The contribution made by the accent to the recognition of the number of words is impaired by the existence of words, having two accents, and of words, having no accent, but not as seriously as one might expect

²⁴ In the case of words having only one vowel there is no need for indicating the accent in writing.

²⁵ This is the reason why we indicate the accent with all plurivocalic words in writing.

because of the polymorphematic character of the former and the small number and limited possibilities of combination (syntactical valence) of the latter.²⁶

- 3° the rôle played by the accent in the international patterns of word-groups. This will be discussed in the description of the syntax.

3. Words having two accents.

The words which have two accented vowels may be classified in three groups:

- 1° *verb-forms*. Most verb-forms have one accent on a vowel of the root-morpheme and one on a vowel of some other morpheme.²⁷ The first accent, which we call *secondary* accent, consists of a pitch which is less high than that of the second, which we call the *primary* accent; but primary and secondary accent may change places.²⁸ The place of the accents in verb-forms will be discussed in the morphological part of our description. In our writing system we indicate both accents in the same way, e.g. *pripsántam* - he throws from there to here.
- 2° *proper names*. Some proper names, having more than two vowels, may have — apart from the fixed, primary, accent a secondary accent on a certain vowel, preceding the vowel which has the primary accent. In these cases the two accents are not interchangeable. The secondary accent may be absent; this usually is the case in fast speech. In writing, this secondary accent will be indicated with a grave accent (`), e.g. *masàtekáte* - mythological name, *hàmongreintýŋ* - a field-name, *hàmongránŋ* - name of a village.
- 3° the word *sám sám*. In this word, which means "slow, in order", the two vowels are equally accentuated so that formally it corresponds with a repeated word like *kendó kendó* - quick (!). But *sámsám* can not be called such a repeated word, as a simple form *sam* does not occur.²⁹

²⁶ Therefore, it is impossible to use the accent for the distinction of the word in Nimboran. Cf. what is said about this by Joseph H. Greenberg in his "Essays in Linguistics", Chigaco, 1957, esp. p. 31—32.

²⁷ For the terms "morpheme" and "root-morpheme", see Part Two, Ch. I.

²⁸ See Part Two, Ch. II, § 9.

²⁹ A word *sam* really exists but its meaning is totally different so that it hardly can be connected with *sámsám*.

It may be said that all words, having two accents, constitute border cases between single words and groups, consisting of two separate words. This view is supported by the fact that consonant-sequences, which are not found elsewhere, occur in many such words as morpheme-junction-markers (see Ch. VI, §§ 2, 3, 4 and 10). They are treated here as words because of their inseparability.

4. Words without an accent.

Some words, which are, syntactically, closely connected with the immediately preceding or following word, do not have an accent. As the resulting word-group constitutes a border-case between one word and two words, the accentless words may be called "sub-words".³⁰ These sub-words are:

pe, the accentless alternant ³¹ of *po* - must, can. *pe* is closely connected with the immediately following word, e.g. *no pe tapóu* - he must (can) help, *pe to* - it must (can) indeed!.

me, the accentless alternant of *mái* - already. It is closely connected with the immediately following word, e.g. *me skín* - already ripe, *me íám* - already finished.

ne - to, and its alternants: *ne*, *me*, and *nié*. These may be without accent and then constitute a close-knit group with the immediately preceding word; e.g. *iamó ne* - to the house, *dekám ne* or *dekám me* - to the ladder, *kenái ne* or *kenái nié* - upward, *mendín ne* or *mendín ne* - to the wall.

Attention must be drawn to the fact that in this case the accentless sub-words are free variants of normally accented forms.

ta, the accentless alternant of *to* - indeed. It is closely connected with the immediately preceding word, e.g. *íám ta* - finished!.

VIII. WORD-ALTERNANTS

1. Partly homophonous synonyms.

A number of word-pairs are found, the members of which are slightly different in form but identical in meaning, in other words: partly homophonous synonyms. Those cases of partly homophonous synonyms, which do not show any systematical feature, either in their

³⁰ This, in our opinion very felicitous, term we owe to E. M. Uhlenbeck.

³¹ For a discussion of word-alternants, see the next chapter.

formal differences, or in the use of their members, need not be discussed here, as there is no connection³² between their resemblance of their forms and the identity of their meaning. They will be found in the dictionary. Just by way of illustration, some examples are given here:

dekuám and *rekuám* - meat
neikáo and *keikáo* - narrow
bróunye and *bróungye* - cuscus
meré and *méro* - kind of red dye
minie and *mingie* - before, formerly
ngetán and *ngetám* - a mythological name
nengýe and *rengýe* - show
kieténdy and *skieténdy* - all, always
rebýe and *bebýe* - kind of venomous snake.

The remaining cases, which are discussed in this chapter, fall into three groups:

- 1° speed-alternants. These are pairs of words one member of which is used in fast speech only.
- 2° conditioned alternants. These are pairs of words of which one member occurs only in a certain syntactical or phonemical environment.
- 3° free alternants. In these pairs of words the members do not show any regularity in their use but their formal differences are found in more than one case and so they are parallel in their formal characteristics.

2. Speed-alternants.

In fast speech words containing four or more vowels may be replaced by forms differing from them in the absence of one or more vowels. In the shorter form, which we call *allegro alternant*, only those vowels may be absent which in the fuller form, for which we use the term *lento alternant*,³³ have no accent and are not immediately followed by another vowel. The possibility of the formation of *allegro alternants* is given by the number of vowels in a word. It

³² Of course, this connection is meant in a synchronical sense. Historical connections are left out of discussion here.

³³ Hockett uses the terms "clarity-norms" and "frequency-norms". See: Charles F. Hockett, *A Manual of Phonology*, Baltimore, 1955, p. 220—221.

is a productive operation, in contradistinction to the cases to be discussed in § 3 and § 4. Among those words whose form admits of the formation of allegro alternants, many verb-forms are found, because of their complicated morphological structure, e.g. *pribnngátu*, allegro form of *pribenengátu* - I throw repeatedly from below to above; *pripkrebdú*, allegro alternant of *pripkrebedú* - we two will throw up from here. The first example shows that in allegro alternants consonant-clusters may occur which are never found in lento forms.

3. Conditioned word-alternants.

Conditioned alternants occur only under certain conditions; these conditions are either syntactical environment or phonemical environment.

Syntactical environment in the form of close syntactic connection with an immediately following word is the condition for the occurrence of

me, alternant of *mái* - already (see Ch. VII, § 4). *mái* is not possible in the same position.

pe, alternant of *po* - can, must (see Ch. VII, § 4). In the same position *po* is also possible, so the variation is free, although there is some preference for *pe*.

Syntactical environment in the form of close syntactic connection with the immediately preceding word is the condition for the occurrence of:

ta, free variant of *to* - indeed (see Ch. VII, § 4).

Phonemically conditioned, i.e. conditioned by the phonemes of the immediately preceding word, is the occurrence of:

dié, alternant of *de* - of. *dié* occurs, as a free variant, only if the immediately preceding word has final *i*, e.g. *ki dié* (or *ki de*) - of the woman, *uái dié* (or *uái de*) - of the sun.

ge and *gué*, alternants of *be* - as to. *ge* and *gué* occur, as free variants of *be*, only if the immediately preceding word has a final *ŋ* or a final *u* which is immediately preceded by a vowel, e.g. *reráu ge*, *reráu gué*, or *reráu be* - as to the gnashing; *tangánŋ ge*, *tangánŋ gué*, or *tangánŋ be* - as to the cord.

nié, *me*, and *ŋe*, free variants of *ne* - to.

nié (or *nie*) may occur only if the immediately preceding word has final *i*.

me may occur only if the immediately preceding word has final *m*.

ŋe occurs only if the immediately preceding word has final *ŋ*.

For examples see Ch. VII, § 4.

4. Free alternants.

Among the free alternants, as defined in § 1, we reckon the following :

- a. Those with interchange of word-initial *h* and *s*, enumerated in Ch. IV, § 12.
- b. Those with interchange of word-initial *h* and *se-*. These are: *hremé* and *seremé* - song; *hremái* and *seremái* - name of a village.
- c. Those with interchange of word-initial *h* and *si-*. These are: *hŋgri* and *síngri* - name of a village, *hŋgriuái* and *síngriuái* - name of a village, *hŋgi* and *síngi* - name of a former village.
- d. Those with interchange of word-final *o* and *a*. These are:
 - 1° all words having final *o* or *a*, immediately preceded by an *u* having an accent, e.g. *hapróo* and *hapróa* - betel-vine (Piper betle), *kemúo* and *kemúa* - pit.
 - 2° *kebó* and *kebá* - string-bag.
 - 3° the adapted loan-words *médio* and *média* - table, and *tíko* and *tíka* - mat (see Ch. IX, § 3).

For *ta*, alternant of *to*, see § 3 and also Ch. VII, § 4.
- e. Those with interchange of *a* and *e*. These are:

kabí and *kebí* - traditional feast,³⁴
ŋáre and *ŋére* - myself, ourselves,
báre and *bére* - yourself,
náre and *nére* - himself, herself, itself,
máre and *mére* - ourselves,
saremái and *seremái* - name of a village,
nambruón and *nembruón* - Nimboran.
- f. Those with interchange of *i* and *ni*. These are:

handián and *handán* - try,
inióiam and *nióiam* - half,
inǵiámbu and *inǵámǵbu* - head,
isiú and *isú* - shake,

³⁴ But: *kabí* (not *kebí*!) - frying-pan;
kebí (not *kabí*!) - stomach.

máise (*bu*) and *máse* (*bu*) - saliva,
práisi and *prási* - charm, magic,
néimbu and *némbu* - name of a river,
indiongrán and *ndiongrán* - name of a clan,
iyé and *yé* - wave, beckon,
maniým and *maným* - point, tip,
iniéuo and *niéuo* - relative on one's mother's side,
ingeniém, *ngeniém*, and *ingeném* - place-name,
míngie and *mínge* - before.

g. Those with interchange of *u* and *ni*. These are:

buásom and *básom* - stirring-rod, pestle,
(hengéin) *prentóun* and *(hengéin)* *prentón* - knife,
unгы and *ngы* - drum,
práu and *pra* - cross,
puáe and *páe* - mutually,
unгуо and *ngуо* - disappear.

h. Those with metathesis of *r*. These are:

kakróu and *krakóu* - cover,
hraké and *hakré* - kind of tree,
hakrerým and *hrakerým* - name of a river.

Needless to say that these lists may be incomplete.

IX. LOAN-WORDS

1. Foreign influence on Nimboran vocabulary.

In Nimboran, as in most languages, borrowing words from other languages is an important means for enriching the vocabulary. Especially in recent times, foreign cultural influence has been the cause of many words being borrowed. The most important lending language is the lingua franca, which is used — with some regional variants — in the coastal areas of western New Guinea. This language we call New Guinea Malay (NGM), for want of a better term. This NGM is not very much different from Bahasa Indonesia, the national language of Indonesia, so that in many cases the question, if a word was borrowed from NGM or from Indonesian, is utterly senseless. For words, borrowed by Nimboran from other languages — among which in the first place Dutch must be mentioned —, NGM often, but not always, served as an intermediary. As Indonesian/Malay was introduced in primary education already years ago, every Nimboran-

speaker has a certain knowledge of this language and borrows words from it freely, not only in high-flown speech-making and in technical statements, but also in everyday conversation. Especially among the younger generation, garnishing the language with Malay/Indonesian words is an established custom, even in those cases in which original Nimboran words would be as good or even better.

2. Adapted and unadapted loan-words.

It is not surprising that foreign words, used in Nimboran speech, often show forms which do not fit in with the Nimboran phonological system. Indeed, these words are still regarded as foreign. Therefore, they may be left out of our description and it also is not feasible to include them in a dictionary as their number is indefinite.

The case is different, if the form of a foreign word is adapted to the structure of Nimboran and so loses the outward characteristics of its origin. An examination of this process of adaptation may deepen our insight into the phonological structure of Nimboran and that is why a special chapter is devoted to loan-words and also why especially adapted forms receive attention.

As adaptation of foreign forms is a process, progressing in time, words in different stages of adaptation can be found at the same time. Even different stages of adaptation of the same word can occur simultaneously. Moreover, the process of adaptation may sometimes go in different directions, so that the result may be more than one adapted form. Instances of this will be found below.

3. Characteristics of adapted loan-words.

The phonetic structure of a foreign word may be such that adaptation brings about only phonetic changes, i.e. the phonemes are actualized in the Nimboran way. This is the case with e.g.

benán - thread (Mal. *benang*).³⁵

téron - egg-fruit (*Solanum* spp.). The NGM form *térong* probably comes from Javanese, as the Indonesian word is *terung*.

bauán - onion (Mal. *bawang*).

káin - cloth (Mal. *kain*).

³⁵ Words from other languages are given here in their usual spelling. The spelling of NGM words is based on the official orthography of the Bahasa Indonesia, difference in word-structure being taken into account. With the indication Mal. (Malay) is meant: Indonesian plus NGM.

pésta - feast (Indon. *pésta*, NGM *fésta*).

pepáia - pawpaw (Indon. *pepaja*).

pandái - shotgun, rifle. This word, originally Spanish, must have come from one of the languages of eastern Indonesia. The final *i* makes it probable that the Biak language served as an intermediary.

spátu, *sepátu* - shoe. Of these two forms, probably the former is NGM *spatu* and the latter Indon. *sepatu*.³⁶

kitab - book (Mal. *kitab*).³⁷

kásbi - manioc (NGM *kasbi*).

The *u* of Mal. words is often replaced by Nimboran *y*. This may be due to the phonetic difference between rounded Mal. *u* and the unrounded *u* of Nimboran. E.g. *sýsy* - milk (Mal. *susu*).

Maybe in the same circumstance the cause is to be found of the change of *o* of some Mal. words into *u*, e.g. *prup* - cork (NGM *prop*). But the reverse is also found, e.g. *bánko* - bank (Mal. *bangku*).

Change of *k* into *g* is found in *semángga* - watermelon (*Citrullus vulgaris*) (Mal. *semangka*).

The lamino-alveolars are usually "analysed" to apico-dentals plus following *i*, e.g.

kásian - legume (Mal. *katjang*).

siepátu - shoe (NGM *tjepatu*).

ensié - sir (used to address a Chinese) NGM *éntjé*, Indon. *entjik*).

média, *médio* - table (Mal. *medja*).

(úndy) *rádio* - kind of banana (Mal. (*pisang*) *radja*).

bánia - many (Mal. *banjak*).

minia (but also *mína*) - oil (Mal. *minjak*).

The last two examples show that original final *k* is lost. This appears to be the rule, e.g. *bre* - tin (Dutch *blik*); *bébe* - duck (Mal. *bébék*).

Word-final *s* or *t* of foreign words is usually retained, a final *e* being added, e.g.

káse - coffin (NGM *kas*, from Dutch *kast*).

kertáse, *kratáse* - paper (Mal. *kertas*).

tomáte, *temáte* - tomato (Dutch *tomaat*).

³⁶ In Nimboran these two words act as speed-alternants.

³⁷ For a proper understanding it is pointed out that written word-final *b* is pronounced as *p* in Indonesian and NGM.

Exceptional are

addition of final *i* in *nanási* - pine-apple (Mal. *nanas*);
 loss of final *s* in *bra* - rice (NGM *bras*);
 loss of final *t* in *dói* - money (Mal. *duit*). It is possible that these three words did not come directly from Mal., so that some other language, which served as an intermediary, is responsible for the irregularity of the changes.

Final *n* of foreign words usually becomes *ŋ*, e.g.

ámboŋ - Ambon, Ambonese, from *Ambon*,
nípunŋ - Japan, Japanese, from *Nipon*,
mentímunŋ - cucumber (Indon. *mentimun*),³⁸
sábunŋ, but also *sábun* - soap (Mal. *sabun*).

Final *r* is lost through adaptation, e.g.

háma - hammer (Dutch *hamer*),
émbe - Indonesian, Asian (Biak *amber* - non-white foreigner),
uáke - kind of song (Bonggo *waker*),³⁹
róbo - tencents piece (NGM *lopor*),
tíko, *tíka* - mat (Mal. *tikar*),
dámo - resin (Mal. *damar*).

Word-initial or word-medial *l* becomes *r*, e.g.

rábu - pumpkin (Mal. *labu*),
súrinŋ - flute (Mal. *suling*),
meríte - soldier (Mal. *melítér*, from Dutch *militair*),
bránda - Dutch (NGM *Blanda*).

Word-final *l* is lost, except if immediately preceded by *i* or *o*, as *-il* becomes *-ie* and *-ol* becomes *-uo*, e.g.

répe - spoon (Dutch *lepel*),
pínsie - pencil (Mal. *pensil*),
betúo - bottle (Mal. *botol*),
pásiuo - pick (Mal. *patjöl*).

³⁸ This is a clear case of a word borrowed from Indonesian; the NGM equivalent is *ketimun*.

³⁹ Bonggo is an Austronesian (Malayo-Polynesian) language, spoken in the coastal area east of Sarmi, north-west of Nimboran.

Immediately before a stop a homorganic nasal may arise, e.g.

taringy - flour (Mal. *terigu*),

ngam - chewing-gum (English *gum*),

temánte, tománte - tomato (Dutch *tomaat* or Mal. *tomat*).

Above we already came across the forms *temáte* and *tomáte*; in this case different ways of adaptation gave rise to four alternants.

In some cases the changes are less simple than those discussed above. *tusé*, used in the expression *undúo tusé* - cat, can be traced back to the word *tusa* which is found in eastern Indonesian languages, but this leaves unexplained the change of final *a* into *e*.⁴⁰

The words *ngráturu* and *ngrátúe* both mean "tractor, bulldozer, road-grader". However, it is uncertain if the model was *tractor* or *grader*. It is not beyond possibility that the two words blended into one.

Besides *bendéra* - flag (Mal. *bendéra*), an alternant *méndro* exists, which is used particularly by the aged and is regarded as ridiculous by the young people, more versed in Malay. Likewise especially used by the older people is *aringy* as an alternant of *harimíngu* - week, Sunday (Mal. *hari minggu*).

There are more instances of adaption making one word out of what was originally two, as is the case in *harimíngu*, e.g. *tuángry* - teacher (Mal. *tuan guru* - Mister teacher).

In some cases popular etymology caused formal deviations. So for "co-operative", instead of a form which could be expected from Mal. *koprasi* like *koprási*, the expression *kym prási*, literally meaning "coconut magic",⁴¹ came into use.

Of the two alternant words for "maize", *ièmbrokáse* and *èmberekáse*, some people think the latter is more correct, as they interpret it with NGM *ambéri kasi* - foreigners gave it.⁴²

⁴⁰ There is another expression *áiam tusé*, used as an abusive term for women. The explanation, given by some informants, that its original meaning was "duck", does not seem to be very reliable.

⁴¹ This is closely connected with the fact that the Nimboran people think of means to modern development first of all as magical means for procuring wealth.

⁴² It is not easy to see what the real history of this word must have been. It is rather certain that the first part of it is the word *amber* - foreigner. Most probably it came, by a long route, from one of the languages of the Geelvink Bay area. Wondama, an Austronesian language in that area, has as an equivalent *pas-amber* - litt. foreign rice. That the constituent parts of the expression changed places on the way from an Austronesian to a non-Austronesian language, is easily accounted for by syntactical rules, governing these languages. But the change of *p* into *k* remains unexplained, as long as we do not know more about the historical backgrounds.

PART TWO:

MORPHOLOGY

I. INTRODUCTION

1. Morphology: categories of form and meaning.

Morphology is concerned with those words which show a partial similarity in form and in meaning, in so far as their partial differences in form and meaning show a systematic character. As there appears to be a good deal of misunderstanding with regard to this matter, we have to enter, at least, into the basic principles.

In many languages, including Nimboran, groups of words are found which show a partial similarity in their forms and also have a common element in their meanings, whereas each of these words can be opposed to one or more other words from which they are differentiated by precisely the same formal and semantic element. Such groups we call *m o r p h o l o g i c a l c a t e g o r i e s*.¹ The formal feature(s), shared by the members of a category, need not be absolutely uniform but may show some variation, provided that this variation is defined by the phonemical shape of the word and, therefore, is predictable. If differences are found which are unpredictable, the words in question do not belong to one category.

2. Morphemes.

The formal characteristics, marking words as members of a category, we call *m o r p h e m e s*. The use of this term is open to objections, as in many linguistic publications it is used in a meaning which we do not want to attach to it, viz. the meaning of a basic structural unit.

In this matter we share Uhlenbeck's view, that "a morpheme is merely a moment in a word".² Therefore, we would prefer to speak of "formal features marking members of a morphological category as such". But this would be a long-winded and cumbersome formula and so we will use the existing word "morpheme". However, we do this

¹ Concerning the reality of the existence of categories as elements of linguistic structure and the possibility of studying and describing them, see: E. M. Uhlenbeck, *Verb Structure in Javanese*, in: *For Roman Jakobson*, The Hague, 1956, p. 568.

² E. M. Uhlenbeck, *The study of wordclasses in Javanese*, *Lingua*, III (1952), p. 332—354.

only with emphatic reference to our definition and without attaching to the term the idea of an independent linguistic unit.³

3. Morphological categories and syntactic valence.

Having mentioned the semantic element that is common to the members of a category, we now have to state this view more fully. For in certain cases the members of a category are distinguished from correlated words not so much by an element of meaning as by a difference in syntactic valence.⁴ By this term is meant: systematic combinability with other words; e.g., the English words *sings* and *singer* (in: *The man sings a song* and *The man is a good singer*) have different syntactic valence (and therefore are not interchangeable). As a common syntactic valence and a common element of meaning do not exclude each other — the latter is even usually found in combination with the former —, we may say that members of a category have in common: an element of form + an element of meaning and/or syntactic valence.

4. Morphological sets. Lexical and categoric meaning.

Words, belonging to different morphological categories but corresponding with each other in form and meaning, constitute a morphological set. The formal feature they have in common is a root-morpheme.⁵ The relations between members of a morphological set and those between members of a category are across each other:

³ For a discussion of this problem, see the article by Uhlenbeck, cited in the preceding foot-note, and also: H. Schultink, *De morfologische valentie van het ongelede adjectief in modern Nederlands*, Den Haag, 1962, p. 11. In Schultink's book a lucid exposition is given of the consequences of the principles, laid down in Uhlenbeck's article, for morphological research. As our methods are along the same lines, it is enough for us to state briefly the outlines and to refer the reader to these two authors. Needless to say that for the presentation given here only the present author is responsible.

⁴ For this term see: A. W. de Groot, *Structural Linguistics and Wordclasses*, *Lingua*, I (1948), p. 437.

⁵ Here the same terminological difficulty arises as was found with the term "morpheme" (§ 2). An expression like "basic morpheme" might have been used instead of "root-morpheme". Bloomfield's term "kernel" has to general a meaning and his term "stem" we prefer to use in a different, more specialized, meaning (cf. *Language*, p. 225 sqq.).

	Category X	Category Y	Category Z
Set A	ax	ay	az
Set B	bx	by	bz
Set C	cx	cy	cz

The semantic feature shared by the members of a morphological set we call the *lexical meaning*; its description belongs to the dictionary.⁶ The semantic feature that is common to all members of a morphological category we call the *categoric meaning*. A fair statement of a categoric meaning is often far from being a simple matter, as the lexical meaning of the words in question may enter largely into the establishment of the categoric meaning. The short formulas we will use for indicating the categories are only meant as practical labels.⁷ The term “categoric meaning” will be used here for the total, non-formal, value of membership of a category and so will also include the conception of syntactic valence, discussed in the preceding §. To avoid any misunderstanding, it must be added that the meaning of a polymorphemic word can not be said to be the sum total of lexical meaning plus categoric meaning(s); but these meanings are somehow represented in the total meaning of the word.

5. Zero morphemes.

As has been said before, the members of a morphological category show a common formal feature. This formal feature becomes apparent from the comparison with morphologically related words (co-members of morphological sets), belonging to other categories, e.g., English *worker* vs. *worked*, *walker* vs. *walked*, etc. In this example there is an opposition between words having one categoric morpheme (*-er*) and words with a different categoric morpheme.

However, in many cases the formal opposition is found in the presence of a certain formal feature in the one case and its absence in the other; e.g., English *work* and *walk* as opposed to *working* and

⁶ In our morphological description we will regularly add a translation to the words under discussion. This translation usually contains only a superficial indication of the lexical meaning. A more detailed description of the meanings will be found in the vocabulary in the second volume.

⁷ Cf. what is said about this by Uhlenbeck, in his article, cited above, in For Roman Jakobson, p. 568.

walking. In such cases we may speak of a zero morpheme with those words which are characterized by the absence of a certain formal feature. It is clear that this is just another way of saying that a certain element of form is absent and that this absence determines the place of the word, or words, in question within the morphological framework of the language.

In our discussion of Nimboran morphology we will time and again come across cases which can be described with the term zero morpheme. In some cases we will even have to speak of zero root-morpheme.

6. Productivity.

A morphological category may be productive or unproductive. If a category is unproductive, new members can not normally be added, and, consequently, its members can be enumerated.

Productive categories, however, have no fixed number of members; they represent a *procédé* that may be extended over ever more words. Such productive *procédés* provide a speaker with the morphological means for forming new words, no matter whether he has heard these words being used by other speakers or not. Investigating the ways in which this is performed is the main subject of descriptive morphology.⁸

7. The limits of productivity.

What was said about the relative importance of productive categories in a morphological description does not mean that unproductive categories could be disregarded. Unproductive categories deserve full attention, first, because they meet the important criterion of categoric relations,⁹ second, because of the effect many of them have on productive categories. For the existence of unproductive categories is the chief barrier to unlimited application of productive *procédés*, as in the majority of cases a member of a productive category is not used, if its semantic "place" is occupied by a member of an unproductive category. An unproductive category can block the extension of a productive one only if both have the same categoric meaning.

In some cases a word is found having the same effect as a member of an unproductive category. Such a word shows the same semantic

⁸ A comprehensive discussion of the problems of productivity vs. unproductivity is given by Schultink, o.c., p. 36 sqq.

⁹ Cf. E. M. Uhlenbeck, *Over woordvorming in het Javaans, Bijdragen tot de Taal-, Land- en Volkenkunde*, CXI (1955), p. 306.

relationship to some other word — to which it may or may not be partly similar in shape — as is found between a member of a productive category and a corresponding word belonging to some other category, whereas the same difference in form is not found in combination with the same difference in meaning with any other pair of words. As such **blockading words** mark the boundary of the sphere of operation of the productive categories in the same way as **blockading categories**, we have to mention them in our morphological description.

No mention will be made of those cases in which a lexical meaning is incompatible with a categoric meaning. Such forms do not normally occur, but, at any rate, they are conceivable.

Between productive categories on the one side and semantically equivalent unproductive categories (and ditto blockading words) on the other side a certain tension exists. In the case of Nimboran, this is apparent from the fact that born speakers of the language who lived outside their own community for a long time, say several years, display a tendency to substitute (new) members of productive categories for members of unproductive categories or blockading words. In this way, the character of the productive categories is clearly demonstrated.

8. Competitive forms.

But even by those people who speak their language correctly members of productive categories are sometimes used side by side with words belonging to unproductive categories without any difference of use or meaning. Then the categories to which these words belong are in **competition**. Occasionally, competition is found between unproductive categories.

9. Morphological systems and their internal organization.

If morphological categories contain words belonging to the same morphological sets, there is a certain relationship between these categories. Such mutually related categories constitute a **morphological system**. A morphological system may consist of many categories.

If categories, belonging to the same system, show opposition and, therefore, are mutually exclusive within one word, they are of the same **order**; categories, not showing opposition, are of different order. A word may be a member of more than one category but never belongs to two (or more) categories of the same order.

10. Suppletion.

In a few cases, a morphological set has members in only some of the categories of a system, another set, having the same lexical meaning, being found in the rest of the categories, so that these two sets replace each other in part of the categories. For such cases of mutually block-ading morphological sets we use the term *suppletion*.

II. THE PRODUCTIVE CATEGORIES OF THE VERB-SYSTEM

1. Introduction.

The only extensive morphological system found in the Nimboran language is the verb-system.¹⁰ Its productive categories will be described at length in this chapter. The unproductive categories and the blockading words playing a part in this system will be discussed in Ch. III and Ch. IV.

2. The categories of the First Person and of the Second Person.

The order of the categories of the Actor.

If we compare the following words:

<i>nguádu</i> - I will bite,	<i>tengánku</i> - I knocked,
<i>nguátu</i> - I bite,	<i>ngrúndu</i> - I will hang up,
<i>nguáku</i> - I bit,	<i>ngrúntu</i> - I hang up,
<i>bekádu</i> - I will kick,	<i>ngrúnku</i> - I hung up,
<i>bekátu</i> - I kick,	<i>uódu</i> - I will dabble,
<i>bekáku</i> - I kicked,	<i>uótu</i> - I dabble,
<i>tengándu</i> - I will knock,	<i>uóku</i> - I dabbled,
<i>tengántu</i> - I knock,	

with these:

<i>nguáde</i> - you will bite,	<i>tengánke</i> - you knocked,
<i>nguáte</i> - you bite,	<i>ngrúnde</i> - you will hang up,

¹⁰ Here, again, a wordclass-term is introduced without explanatory comment. Wordclasses will be discussed in the description of the syntax; until then only names for wordclasses will be used, for which we have chosen existing terms. This is done for practical reasons and in spite of the objections attaching to this use. Cf. what is said about this by Uhlenbeck, *De systematiek der Javaanse telwoorden*, *Bijdragen tot de Taal-, Land- en Volkenkunde*, CIX (1953), p. 342.

<i>nguáke</i> - you bit,	<i>ngrúnte</i> - you hang up,
<i>bekáde</i> - you will kick,	<i>ngrúnke</i> - you hung up,
<i>bekáte</i> - you kick,	<i>uóde</i> - you will dabble,
<i>bekáke</i> - you kicked,	<i>uóte</i> - you dabble,
<i>tengánde</i> - you will knock,	<i>uóke</i> - you dabbled,
<i>tengánte</i> - you knock,	

we see that each word of the first group can be put side by side with one of the second group, each of these pairs showing the same difference in form (final *u* vs. final *e*) and the same difference in meaning. The partial difference in meaning, appearing from the use of the words “I” and “you” in the translation, can be described more specifically as follows: in one case — that of the words having final *u* — the action¹¹ is attributed to the speaker as the actor; in the other case — that of the words having final *e* — the action is attributed to a singular person addressed, as the actor.

More examples can be found ad libitum; further investigation shows that the number of such forms is, in principle, unlimited. We have to do with productive categories whose members are characterized by the formal elements (morphemes) *-u* and *-e* respectively. We call them the category of the First Person (singular) and the category of the Second Person (singular).

They appear to be in opposition and are mutually exclusive; so they are of the same order which we will call the order of the Actor categories.

3. The category of the Third Person Masculine.

If we compare the words cited in § 2 with the following:

<i>nguádam</i> - he will bite,	<i>tengánkam</i> - he knocked,
<i>nguátam</i> - he bites,	<i>ngrúndam</i> - he will hang up,
<i>nguákam</i> - he bit,	<i>ngrúntam</i> - he hangs up,
<i>bekádam</i> - he will kick,	<i>ngrúnkam</i> - he hung up,
<i>bekátam</i> - he kicks,	<i>uódam</i> - he will dabble,
<i>bekákam</i> - he kicked,	<i>uótam</i> - he dabbles,
<i>tengándam</i> - he will knock,	<i>uókam</i> - he dabbled,
<i>tengántam</i> - he knocks,	

¹¹ The term ‘action’ must be understood to mean: the meaning of verbs in general.

we meet with members of another productive category, the members of which are marked by the morpheme *-am*. The categoric meaning is: the action is attributed to a singular male being, not identical with the speaker or the person(s) addressed.

This category is in opposition with the two categories, already mentioned, and so is also of the order of the Actor categories. We call it the category of the Third Person Masculine.

4. The category of the Third Person Neutral.

If we compare the words, given in § 2 and § 3, with the following:

<i>nguádu</i> - she (it) will bite,	<i>tengánkum</i> - she (it) knocked,
<i>nguátum</i> - she (it) bites,	<i>ngrúndum</i> - she (it) will hang up,
<i>nguákum</i> - she (it) bit,	<i>ngrúntum</i> - she (it) hangs up,
<i>bekádu</i> - she (it) will kick,	<i>ngrúnkum</i> - she (it) hung up,
<i>bekátum</i> - she (it) kicks,	<i>uódum</i> - she (it) will dabble,
<i>bekákum</i> - she (it) kicked,	<i>uótum</i> - she (it) dabbles,
<i>tengándum</i> - she (it) will knock,	<i>uókum</i> - she (it) dabbled,
<i>tengántum</i> - she (it) knocks,	

we find them to be members of another productive category which has the morpheme *-um* and the categoric meaning of the attribution of the action to a singular actor, which is not of male sex and not identical with either the speaker or the person addressed. We call this the category of the Third Person Neutral. It is found to be in opposition with the categories belonging to the order of the Actor categories, so it is of that same order.

5. The categories of Future, Present, and Past.

The verb-forms, given in the §§ 2 to 4, show other oppositions than those already discussed, if we arrange them as follows:

<i>nguádu</i> - I will bite,	<i>nguádam</i> - he will bite,
<i>nguáde</i> - you will bite,	<i>nguádum</i> - she (it) will bite,

as opposed to:

<i>nguátu</i> - I bite,	<i>nguátam</i> - he bites,
<i>nguáte</i> - you bite,	<i>nguátum</i> - she (it) bites,

and also to :

nguáku - I bit,
nguáke - you bit,

nguákam - he bit,
nguákum - she (it) bit.

In the same way :

bekádu - I will kick,
bekáde - you will kick,

bekádam - he will kick,
bekádum - she (it) will kick,

are found in opposition with :

bekátu - I kick,
bekáte - you kick,

bekátam - he kicks,
bekátum - she (it) kicks,

and with :

bekáku - I kicked,
bekáke - you kicked,

bekákam - he kicked,
bekákum - she (it) kicked.

The same can be done with the rest of the given verb-forms. In this way, it appears that forms, having a formal element *-d-* immediately preceding the Actor morpheme and having as part of their meaning "the action will take place in the future, or begins in the present and will continue in the future, or takes place in the present and is directed towards the future", are opposed to forms which do not have this semantic element and are characterized by having *-t-* or *-k-* instead of the *-d-*. The words characterized by the morpheme *-d-* constitute a productive category which we call the category of the Future.

Further study of the use of Future forms shows that the given formula of the categoric meaning is not broad enough. Because forms of the Future category are often used to indicate that the actor intends or wants to perform the action, or that the speaker wants the action to take place. In the latter case, the meaning may be a command or a request.

The words, characterized by the morpheme *-t-* which immediately precedes the Actor morpheme, all show the semantic element "the action takes place in the present or is completed in the present". They constitute a category which, again, appears to be productive. This we call the category of the Present.

Sometimes, members of the Present category are also used when, strictly speaking, the action does not relate to the present, or is not

limited to the present. For Present forms are used in all those cases in which the time of the action is unimportant or is left out of account (in general statements and the like). So it might be said that, semantically, this category is characterized by the absence of a certain element of meaning and its members have reference to actions, not explicitly mentioned as belonging to either the future or the past.

The fact that many Present forms are formally characterized by a zero morpheme — as we shall see later on — may be said to be in accordance with this.

The words which are characterized by the morpheme *-k-* have in common the semantic feature “the action took place in the past”. They appear to constitute a productive category which we call the category of the Past.

The categories of Present, Past, and Future are of the same order. This we call the order of the categories of Tense. That this order is different from that of the Actor categories appears from the fact that all verb-forms, given so far, belong to an Actor category as well as to a Tense category.

6. The category of the Recent Past.

The Tense forms discussed in the preceding Section can be opposed to still other forms, e.g. *nguádu*, *nguátu*, and *nguáku* to *nguápu* - I bit. This word is formally characterized by the morpheme *-p-*, preceding the Actor morpheme, and its meaning shows the feature “the action took place in the past but not before yesterday”. With precisely the same difference in meaning we find opposed to *nguáde*, *nguádam*, *nguádum*, etc., *nguápe*, *nguápam*, and *nguápum*; opposed to *bekádu* etc., *bekápu* etc.; opposed to *tengádu* etc., *tengámpu* etc.; opposed to *ngrúndu* etc., *ngrúmpu* etc.; opposed to *uódu* etc., *uópu* etc.

Again, we have to do with a productive category; we call it the category of the Recent Past. As it appears to be in opposition with Tense categories, it is of the same order.

To the description of the semantic value of the Recent Past category must be added that members of this category are also used for denoting actions, performed in a past more remote than the preceding day, this to indicate a difference of time in the past. Thus, in a narrative, told with verb-forms of the Past Tense, a form of the Recent Past may be introduced to refer to some event that happened at a time, later than that in which the rest of the story is set.

7. Morphological variations.

Some of the words, discussed up to now, call for further consideration. For we see that in the cases of *tengánku*, *tengánke*, *tengánkam*, and *tengánkum*, as opposed to *tengámpu*, *tengámpe*, *tengámpam*, and *tengámpum*, as opposed to *tengántu*, *tengánte*, *tengántam*, and *tengántum*, and also to *tengádu*, *tengánde*, *tengándam*, and *tengándam*; and of *ngrúnku* etc., as opposed to *ngrúmpu* etc., as opposed to *ngrúntu* etc., and *ngrúndu* etc., there is not only the difference of the consonant, acting as the morpheme of the Tense category, but also the immediately preceding nasal is different. This nasal consonant appears to be part of the root-morpheme. In those cases in which this consonant is word-final (we will come across these cases later on, in the §§ 46 and 47), it appears to be *ŋ*, e.g. *tengánŋ*, *ngrunŋ*. Therefore, we take this *ŋ* as a norm and formulate the following rule: root-morpheme-final *ŋ* becomes *m* if, within the same word, it is immediately followed by *p*, and becomes *n* if, within the same word, it is immediately followed by *t* or *d*.¹² Occasionally, the *ŋ* is preserved before immediately following *p*, *t*, or *d*, e.g. *ngrúnŋdu* instead of *ngrúndu*; but this is exceptional, the partial assimilation to homorganic nasal being the rule.

8. Other morphological variations.

In contrast to the root-morphemes with final *ŋ*, all root-morphemes having final vowel remain unchanged in the forms discussed above. The same can be said of the root-morphemes having final *m*, like *sam* - put in between, found in forms like *sámdu*, *sámte*, *sámpam*, and *sámkum*. But the case of root-morphemes having final *b* is different. If immediately followed by *d*, this *b* remains unchanged but, if immediately followed by *t* or *k*, the *b* may be replaced by *p*. In these cases there seems to be no preference for either *p* or *b*.

So with the root-morphemes *pyb* - stab, *brub* - fold, *peb* - peel, and *besib* - bend, we find the Future forms *pýbdu*, *brúbde*, *pébdam* and *besíbdam*, but the Present forms *pýbtu* and *pýptu*, *brúbte* and *brúpte*, *pébtam* and *péptam*, *besíbtum* and *besíptum*; and the Past forms *pýbku*

¹² That here (and occasionally in other parts of this book) differences in forms are spoken of in terms of processes, must be seen as just a descriptive technique; cf. Eugene A. Nida, *Morphology*, 2nd ed., Ann Arbor, 1949, p. 21; Zellig S. Harris, *Distributional Structure*, Word, X (1954), p. 146 sqq.; E. M. Uhlenbeck, *Over woordvorming in het Javaans*, *Bijdragen tot de Taal-, Land- en Volkenkunde*, CXI (1955), p. 287.

and *pýpku*, *brúbke* and *brúpke*, *pébkam* and *pépkam*, *besibkum* and *besípkum*.

The corresponding Recent Past forms appear to be *pýpu*, *brúpe*, *péпам*, and *besípum*. So we may say that root-morpheme-final *b* and an immediately following *p* are merged into a single *p*. To this must be added that this *p* always is a stop and that the fricative allophone which may occur anywhere else in intervocalic position, as a free variant, is not possible here (cf. Part One, Ch. IV, § 1).

9. The Second Position category. Two accents on verb-forms.

There are more forms to which the members of the Past category may be opposed, e.g.

nguábáku - I bit above, to *nguáku*,
nguábáke - you bit above, to *nguáke*,
nguábákam - he bit above, to *nguákam*,
nguábákum - she (it) bit above, to *nguákum*.

In the same way, we find *bekábáku* - I kicked above, etc., opposed to *bekáku* etc. and *uóbáku* - I dabbled above, etc., opposed to *uóku* etc.

Formally, these new forms show an element *-ba-* immediately preceding the Tense morpheme. Further, the vowel of this *-ba-* has an accent, just like one of the vowels of the root-morpheme. Semantically, these forms are characterized by the element "in a place within the speaker's sight but higher than that of the speaker".

The other forms, with which we compared them, lack both the *-ba-* and the semantic element, just described. It appears that this *-ba-* is the morpheme of a productive category which we call the Second Position category.

The occurrence of two accents in one word, as found with members of this category, has already been mentioned in Part One, Ch. VII, § 3. As we shall see later on, this is the case with the majority of the verb-forms. If a verb-form has two accents, one is on a vowel of the root-morpheme, the other is on a vowel of a categoric morpheme. Usually, the former is secondary and the latter a primary accent but a speaker may prefer to make the accent of the root-morpheme a primary one, which automatically causes the other accent to be secondary. This happens particularly if the lexical meaning is stressed, as is the case when two forms, differing in lexical meaning, are contrasted, e.g. *bekábáku kúo be*, *uóbáku* - I did not kick above, I dabbled above.

The occurrence of a second accent (if any) and its place in the word will be indicated for each of the verb-forms to be discussed.

10. The Third Position category.

The forms discussed in § 9 can be opposed to

<i>nguánáku</i> - I bit below,	<i>nguánákam</i> - he bit below,
<i>nguánáke</i> - you bit below,	<i>nguánákum</i> - she (it) bit below.

We also find *bekánáku* - I kicked below, etc., and *uónáku* - I dabbled below, etc.

Formally these forms are characterized by an element *-na-*, immediately preceding the Tense morpheme and having an accent on its vowel. Semantically, they have in common the element 'in a place within the speaker's sight but lower than that of the speaker'. They all belong to a category which appears to be capable of extension and, consequently, is productive. We call it the Third Position category.

11. The Fourth Position category.

To the forms discussed in § 9 and § 10 the following can be opposed:

<i>nguásáku</i> - I bit there,	<i>nguásákam</i> - he bit there,
<i>nguásáke</i> - you bit there,	<i>nguásákum</i> - she (it) bit there,

and also *bekásáku* - I kicked there, etc., and *uósáku* - I dabbled there, etc.

These words are characterized, formally, by the element *-sa-* which immediately precedes the Tense morpheme and has an accent on its vowel, and semantically by the element "in the place of the person addressed or in a place on the same level as the speaker's place but clearly opposed to it".

This category also appears to be productive; we call it the Fourth Position category.

12. The Fifth Position category.

Another category is found in the following forms which show contrast with those discussed in the §§ 9 to 11:

<i>nguánáku</i> - I bit far away,	<i>bekánáku</i> - I kicked far away,
<i>nguánáke</i> - you bit far away,	etc.,
<i>nguánákam</i> - he bit far away,	<i>uónáku</i> - I dabbled for away,
<i>nguánákum</i> - she (it) bit far away,	etc.

Their formal characteristic is the element *-na-* which precedes the Tense morpheme and has an accent on its vowel. Semantically, they are characterized by the element “in a place beyond the sight of the speaker (and the person addressed)”. This category also is productive. We call it the Fifth Position category.

13. The First Position category as opposed to the others.

As the categories we came across in the §§ 9 to 12 show mutual opposition, they are of the same order which we call the order of the *Position categories*.

The forms which do not show a formal mark as to “position”, e.g. *nguáku* etc., also have their place in this connection. Semantically, they are not as un-characterized as they seemed to be. A form like *nguáku*, if opposed to *nguábáku*, *nguánáku*, etc., has the meaning “I bit here” or — in a more general formula — it contains the semantic element “in the place where the speaker is”. Therefore, these forms may be said to be members of a Position category with zero morpheme. We call this the First Position category. Members of this category are always used in those cases in which the place of the action in regard to the speaker’s position is indefinite or does not play a rôle, e.g. in stories, general statements, and the like.

It must be observed that in some cases the lexical meaning of a morphological set asks for an *ad hoc* adaptation of the categoric meanings of the Position categories, as described in the §§ 9 to 13. E.g. in forms with the root-morpheme *kri-* (flee) or with the root-morpheme *uauŷ-* (take along) the position category does not denote the place where but the place from where the flight or the taking takes place.

14. Morphonological remarks in connection with the Position categories.

In § 7 we saw that, in certain cases, the root-morpheme varies according to the immediately following Tense morpheme. As the morphemes, characterizing the Second, Third, Fourth, and Fifth Position

category, precede the Tense morpheme and, therefore, may immediately follow the root-morpheme, we have to ascertain if changes in the phonemic shape of the root-morpheme occur also here.

It appears that root-morphemes having final vowel or final *m* do not show any change; but changes are found with root-morphemes having final *b* or *ŋ*. The deportment of root-morpheme-final *b* appears from the following instances:

<i>pýbáku</i> - I stabbed above,	<i>besíbŋáku</i> - I bent below,
<i>brúbáku</i> - I folded above,	<i>pýpsáku</i> or <i>pýbsáku</i> - I stabbed there,
<i>pébaku</i> - I peeled above,	<i>brúbsáku</i> or <i>brúpsáku</i> - I folded there,
<i>besibáku</i> - I bent above,	etc.,
<i>pýbŋáku</i> - I stabbed below,	<i>pýbnáku</i> - I stabbed far away,
<i>brúbŋáku</i> - I folded below,	<i>brúbnáku</i> - I folded far away,
<i>pébŋáku</i> - I peeled below,	etc.

From these examples (to which many others might be added) we see that root-morpheme-final *b*:

remains unchanged if, within the word, it is immediately followed by *ŋ* or *n*;
 is merged with a *b*, following immediately within the word, into one single *b*;
 may be replaced by *p* or remain unchanged, if *s* follows immediately within the same word (free variation).

The behaviour of root-morpheme-final *ŋ* is shown by the following instances:

<i>tengámbáku</i> - I knocked above,	<i>tengánsáku</i> - I knocked there,
<i>ŋgrúmbáku</i> - I hung up above,	<i>ŋgrúnsáku</i> - I hung up there,
<i>tengánáku</i> - I knocked below,	<i>tengánáku</i> - I knocked far away,
<i>ŋgrúnáku</i> - I hung up below,	<i>ŋgrúnáku</i> - I hung up far away.

From these examples it appears (and this receives confirmation by all similar cases) that root-morpheme-final *ŋ*:

is replaced by *m* if, within the word, it is immediately followed by *b*;
 is replaced by *n* if *s* follows immediately within the same word;
 is merged with a *ŋ*, following immediately within the word, into one single *ŋ*;

is merged with a *n*, following immediately within the same word, into a single *n*.

15. Future forms of the Second, Third, Fourth, and Fifth Position categories.

Opposed to the Future forms of the First Position category :

n̄guádu - I will bite (here),
n̄guáde - you will bite (here),
n̄guádam - he will bite (here),
n̄guádum - she (it) will bite (here),

we find

n̄guábáru - I will bite above,
n̄guábáre - you will bite above,
n̄guábáram - he will bite above,
n̄guábárum - she (it) will bite above.

Corresponding to

bekádu - I will kick (here), etc.,
ten̄gádu - I will knock (here), etc.,
n̄grúndu - I will hang up (here), etc.,
uódu - I will dabble (here), etc.,

we find

bekábáru - I will kick above, etc.,
ten̄gámbáru - I will knock above, etc.,
n̄grúmbáru - I will hang up above, etc.,
uóbáru - I will dabble above, etc.

The last-mentioned forms are members of the Second Position category. In the Third Position category we find as Future forms:

n̄guánáru - I will bite below, etc.,
bekánáru - I will kick below, etc.,
ten̄gánáru - I will knock below, etc.,
n̄grúnáru - I will hang up below, etc.

As Future forms of the Fourth Position category we find :

nguásáru - I will bite there, etc.,
bekásáru - I will kick there, etc.,
tengásáru - I will knock there, etc.,
ngrúnsáru - I will hang up there, etc.

In the Fifth Position category we find the Future forms:

nguánáru - I will bite far away, etc.,
bekánáru - I will kick far away, etc.,
tengánáru - I will knock far away, etc.,
ngrúnáru - I will hang up far away, etc.

All these forms follow the rules, so far established, except for the tense-morpheme which is *-r-* in all these forms instead of *-d-*. As this appears to be the case with all members of these Position categories, we state the rule that the morpheme, characterizing the Future category, is *-d-* in members of the First Position category and *-r-* in members of the Second, Third, Fourth, and Fifth Position categories.

Side by side with the forms of the Fourth Position category, e.g. *nguásáru* etc. and *nguásáku* etc., we find forms in which the *s* is replaced by *h* as free variants: *nguáháru*, *nguáháku* etc. But these *h*-alternants only occur if the consonant in question immediately follows the root-morpheme and immediately precedes a vowel which has an accent and is followed by at least one consonant which is not word-final. As we shall see later on, these conditions are usually fulfilled only in the Singular forms of Future and Past.

16. Present forms of the Second Position category.

To *nguábáru* - I will bite above, and *nguábáku* - I bit above, on the one side and to *nguátu* - I bite here, on the other side, there can be opposed *nguábáu* - I bite above. In the same way we find, opposed to *nguábare* - you will bite above, and *nguábáke* - you bit above, on the one hand to *nguáte* - you bite here, on the other hand, *nguábáe* - you bite above. It appears that these are Present forms of the Second Position category. A striking feature of these forms is the absence of any substantial element characterizing the tense category. In fact, the Present tense is marked here by the absence of any formal element in between the Position morpheme and the Actor morpheme. So we may say that in Present forms of the Second Position category (or: in Second Position forms of the Present tense category, which comes

to the same thing) the morpheme of the category of the Present is zero.

Less simple is the case of the corresponding Third Person forms. These are:

nguábám - he bites above,

nguábóm - she (it) bites above.

In these forms too the Present is characterized by a zero element but the sequence of the vowel of the Position morpheme *-ba-* and the vowel of the Actor morpheme, as we saw in the First and Second Person forms, is not found here. In the Third Person Masculine the combination *a + a* which might be expected here yields one single *a*. This is in accordance with the general rule of word-structure that, within a word, *a* is never immediately followed by *a* (cf. Part One, Ch. V, § 1). But there is no peremptory rule forcing the sequence *au* which one might expect in the Third Person Neutral form, to become *o*. So we have to accept this fact as a peculiarity of these verb-forms. It can be described in the formula: Second Position morpheme + immediately following Third Person Neutral morpheme = *-bóm*.¹³ It remains to add that the accent, found with the First and Second Person forms of the Present and with all Singular forms of Future and Past, in the Third Person Masculine forms of the Present is on the *a* of *-bam* and in the Third Person Neutral forms of the Present is the *o* of *-bom* but may be absent in both cases (free variation). So we find as free alternants *nguábám* and *nguábam*, *nguábóm* and *nguábom*, etc.

Present forms of the Second Position category with other root-morphemes are in entire agreement with the *nguá-*forms described above, e.g.

bekábáu - I kick above,

bekábáe - you kick above,

bekábám, *bekábam* - he kicks above,

bekábóm, *bekábom* - she (it) kicks above,

uóbáu - I dabble above, etc.,

nggrúmbáu - I hang up above, etc.,

tenjámbáu - I knock above, etc.

¹³ In cases like this Charles F. Hockett uses the term "portmanteau representation of a morpheme group" (Two models of grammatical description, *Word*, X (1954), p. 210—234, esp. p. 216). Because our basic principles (see Ch. I) are different from those of Hockett, we do not feel the need of such a term.

17. Present-Recent Past in the Second Position category.

The forms, discussed in § 16, all show a semantic element that was left out of consideration there. *nguábáu*, for instance, has — besides the meaning “I bite above” — the meaning “I bit above today or yesterday”, in other words; this Second Position form corresponds with both *nguátu* and *nguápu* of the First Position category. This is the case with all forms, discussed in § 16 as Present forms. In the Second Position category the opposition between Present and Recent Past, as found with the forms of the First Position category, appears not to exist. Therefore, in the case of the Second Position forms we have to speak of a Present-Recent Past tense.

18. Present-Recent Past forms of the Third, Fourth, and Fifth Position categories.

In the Fourth and Fifth Position categories we find Present-Recent Past forms completely in accordance with those of the Second Position category, e.g.:

nguásám, *nguásam* - he bites (bit) (today, yesterday) there,
nguánóm, *nguánom* - she (it) bites (bit) far away.

But in the Third Position category we find the Present-Recent Past forms:

nguákenáu - I bite (bit) below,
nguákenáe - you bite (bit) below,
nguákenám - he bites (bit) below,
nguákenóm - she (it) bites (bit) below.

In these forms we see an element *-kena-* which, on the one hand, characterizes them as Third Position forms in opposition to Present-Recent Past forms of other Position categories, on the other hand, characterizes them as Present-Recent Past forms in opposition to Future and Past forms of the Third Position category (in the latter case in combination with zero preceding the Actor morpheme). Another peculiar feature is that the Third Person Masculine always has an accent on the *a* of *-kenám* so that an alternant form without that accent does not occur. The same can be said of the accent on the *o* of *-kenóm* of the Third Person Neutral form. As free variants, forms are found for all four Persons having *n* instead of *ŋ* in the Position-Tense mor-

pheme, e.g. *ŋguákenáú*, free alternant of *ŋguákenáú*. But the alternants having *ŋ* appear to be much more frequently used than those with *n*.

Other instances of Present-Recent Past forms of the Third, the Fourth, and the Fifth Position categories are :

bekákenáú - I kick (kicked) below,
uókenáé - you dibble (dibbled) below,
ŋgrúnsám - he hangs (hung) up there,
tengánsóm - she knocks (knocked) there,
ŋgrúnáú - I hang (hung) up far away,
tengánóm - she knocks (knocked) far away.

19. The Sixth Position category.

In opposition to

príbdú - I will throw (here),
príbde - you will throw (here),
príbdam - he will throw (here),
príbdum - she (it) will throw (here),
príbáru - I will throw above, etc.,
príbáru - I will throw below, etc.,
prípsáru - I will throw there, etc.,
príbnáru - I will throw far away, etc.,

we find :

príbedú - I will throw from here to above,
príbedé - you will throw from here to above,
príbedám - he will throw from here to above,
príbedúm - she (it) will throw from here to above.

Opposed to these last four forms we find :

príbetú - I throw from here to above,
príbeté - you throw from here to above,
príbetám - he throws from here to above,
príbetúm - she throws from here to above,

and :

príbeþú - I threw (today, yesterday) from here to above,
príbeþé - you threw (today, yesterday) from here to above,
príbeþám - he threw (today, yesterday) from here to above,
príbeþúm - she threw (today, yesterday) from here to above,

and:

pribekú - I threw from here to above,
pribeké - you threw from here to above,
pribekám - he threw from here to above,
pribekúm - she (it) threw from here to above.

These forms appear to be members of a productive category. They are marked by the formal element *-be-* which immediately precedes the Tense morpheme; semantically they are characterized by the element "from the speaker's place to a higher place within the speaker's sight". As to the formal side, it must be added that here the morpheme *-d-* is characteristic of the Future Tense forms and that the Present forms are marked by the morpheme *-t-*, just like what is found in the First Position forms. Moreover, all members of this category have an accent on the vowel of the Actor morpheme. This category we call the Sixth Position category.

In point of Tense categories, the members of the Sixth Position category are fully parallel to the forms of the First Position category, and not to the Second, Third, Fourth, and Fifth Position forms, as in the Sixth Position category separate Recent Past forms exist with Tense morpheme *-p-*.

20. The Seventh Position category.

To the forms discussed in § 19 the following can be opposed:

pripsedú - I will throw from here to there,
pripsedé - you will throw from here to there,
pripsedám - he will throw from here to there,
pripsedúm - she (it) will throw from here to there,
pripsetú - I throw from here to there, etc.,
pripsepú - I threw (today, yesterday) from here to there, etc.,
pripsekú - I threw from here to there, etc.

These forms belong to a productive category, the members of which are characterized by the formal element *-se-*, immediately preceding the Tense morpheme, and by the semantic element "from the speaker's place to the place of the person addressed or to another place within the speaker's sight, on the same level as the speaker's place, but clearly opposed to it". This category we call the Seventh Position category. The members of this category show a close similarity to the forms of

the Sixth Position category as they have an accent on the vowel of the Actor morpheme, the Future morpheme *-d-*, the Present morpheme *-t-*, and Recent Past as a separate Tense category, opposed also to the Present Tense, with the Tense morpheme *-p-*.

21. The Eighth Position category.

To the forms, discussed in § 19 and § 20, the following can be opposed:

pripsedý - I will throw down from here (i.e. from here to below),
pripsedi - you will throw down from here,
pripsedim - he will throw down from here,
pripsedým - she (it) will throw down from here,
pripsetý - I throw down from here,
pripseti - you throw down from here,
pripsetim - he throws down from here,
pripsetým - she (it) throws down from here,
pripsepý - I threw down from here (today, yesterday),
pripsepi - you threw down from here (today, yesterday),
pripsepim - he threw down from here (today, yesterday),
pripsepým - she (it) threw down from here (today, yesterday),
pripseký - I threw down from here,
pripseki - you threw down from here,
pripsekim - he threw down from here,
pripsekým - she (it) threw down from here.

These forms are different from those of the Seventh Position category by the vowels of the Actor morphemes. The morpheme of the First Person is *-y*, that of the Second Person is *-i*, that of the Third Person Masculine is *-im*, and that of the Third Person Neutral is *-ym*. This series of Actor morphemes — which we will come across again in other categories later on — we call the *apophonic series*.

The forms, cited above, appear to belong to a productive category. The members of this category are characterized formally by the element *-se-*, immediately preceding the Tense morpheme, and Actor morphemes of the apophonic series, semantically by the element “from the speaker’s place to a lower place within the speaker’s sight”. We call this category the Eighth Position category.

Just like the forms of the Sixth and Seventh Position categories, the members of the Eighth Position category have an accent on the

vowel of the Actor morpheme. The Future morpheme in this category is *-d-*, the Present morpheme is *-t-*, and there is a separate Recent Past category with the Tense morpheme *-p-*.

22. The Ninth Position category.

To the forms, discussed in the §§ 19 to 21, can be opposed :

- prībnedý* - I will throw from here to far away,
- prībnedí* - you will throw from here to far away,
- prībnedím* - he will throw from here to far away,
- prībnedým* - she (it) will throw from here to far away,
- prībnetý* - I throw from here to far away, etc.,
- prībneþý* - I threw from here to far away (today, yesterday), etc.,
- prībneký* - I threw from here to far away, etc.

These forms belong to a productive category whose members are formally characterized by the element *-ne-*, immediately preceding the Tense morpheme, and Actor morphemes of the Apophonic series. Their common semantical element is "from the speaker's place to a place beyond the sight of the speaker (and the person addressed)". We call this category the Ninth Position category. In this category we again find an accent on the vowel of the Actor morpheme, *-d-* as the Future morpheme, *-t-* as the Present morpheme, a separate Recent Past category, and *-p-* as the Recent Past morpheme.

23. The Tenth Position category.

To the forms discussed in the §§ 19 to 22 can be opposed :

- prīpkendý* - I will throw from above or from far away to here,
- prīpkendí* - you will throw from above or from far away to here,
- prīpkendím* - he will throw from above or from far away to here,
- prīpkendým* - she (it) will throw from above or from far away
to here,
- prīpkentý* - I throw from above or from far away to here,
etc.,
- prīpkempý* - I threw (today, yesterday) from above or from far
away to here,
- etc.,
- prīpkenký* - I threw from above or from far away to here,
etc.

Once more, we have found a productive category whose members are formally characterized by the element *-ken-*, immediately preceding the Tense morpheme, and the Apophonic series of Actor morphemes, and, semantically, by the element "from a place which is higher than the speaker's place or from a place outside the speaker's sight to the speaker's place". We call it the Tenth Position category.

Just like the forms of the Sixth, Seventh, Eighth, and Ninth Position categories, the members of the Tenth Position category have an accent on the vowel of the Actor morpheme. Other common characteristics of these categories are the form of the Future Tense morpheme, *-d-*, the form of the Present Tense morpheme, *-t-*, and the existence of a separate Recent Past category with the Tense morpheme *-p-*.

From the given examples it appears that the element, designated above by *-ken-*, is *-ken-* if immediately preceding *d* or *t* and *-kem-* if immediately followed by *p*.

24. The Eleventh Position category.

To the forms discussed in the §§ 19 to 23 the following can be opposed :

- pribándu* - I will throw from below to here,
- pribánde* - you will throw from below to here,
- pribándam* - he will throw from below to here,
- pribándum* - she (it) will throw from below to here,
- pribántu* - I throw from below to here,
- etc.,
- pribám̐pu* - I threw (today, yesterday) from below to here,
- etc.,
- pribán̐ku* - I threw from below to here,
- etc.

Those forms appear to belong to a productive category whose members are formally characterized by the element *-ban-*, having an accent on its vowel, immediately preceding the Tense morpheme, whereas they have in common the semantical element "from a lower place within the speaker's sight to the speaker's place". We call it the Eleventh Position category.

In this category too the morpheme of the Future Tense is *-d-*, the Present Tense morpheme is *-t-*, and there is a separate Recent Past category with the morpheme *-p-*. The morpheme of the Eleventh

Position category we have designated by *-baŋ-* but it is *-ban-* if immediately followed by *d* or *t* and *-bam-* if immediately preceding *p*, as is shown by the examples given above.

25. The Twelfth Position category.

To the forms discussed in the §§ 19 to 24 can be opposed:

- pripsáandu* - I will throw from there to here,
- pripsánde* - you will throw from there to here,
- pripsándam* - he will throw from there to here,
- pripsándum* - she (it) will throw from there to here,
- pripsántu* - I throw from there to here,
- etc.,
- pripsámpu* - I threw (today, yesterday) from there to here,
- etc.,
- pripsánku* - I threw from there to here,
- etc.

These forms appear to belong to a productive category. Its members are formally characterized by the element *-saŋ-* which has an accent on the *a* and immediately precedes the Tense morpheme. The semantical element they have in common is "from the place of the person addressed or from a place within the speaker's sight (and clearly opposed to the speaker's place) to the speaker's place".

In this category, too, the Future morpheme is *-d-*, the morpheme of the Present Tense is *-t-*, and there is a separate category of the Recent Past having *-p-* as Tense morpheme. As may be seen from the examples cited above, the morpheme of this category — which we call the Twelfth Position category — is *-sam-* if immediately preceding *p* and *-san-* if immediately followed by *d* or *t*.

In free variation with all these forms other forms are found having *h* instead of the *s* of the morpheme of this category (so *-haŋ-* etc.), e.g. *pribháandu* - I will throw from here to there. Such free variants, however, are only found with the Singular forms and never with Dual or Plural forms (to be discussed later on).

26. The Thirteenth Position category.

To the forms discussed in the §§ 19 to 25 the following can be opposed:

- príbenáru* - I will throw from below, from there, or from far away
to above,
- príbenáre* - you will throw from below (etc.) to above,
- príbenáram* - he will throw from below (etc.) to above,
- príbenárum* - she (it) will throw from below (etc.) to above,
- príbenanáu* - I throw (threw today, yesterday) from below (etc.)
to above,
- príbenanáe* - you throw (threw today, yesterday) from below (etc.)
to above,
- príbenanáam* - he throws (threw today, yesterday) from below (etc.)
to above,
- príbenanáóm* - she (it) throws (threw today, yesterday) from below
(etc.) to above,
- príbenáku* - I threw from below (etc.) to above,
- príbenáke* - you threw from below (etc.) to above,
- príbenákam* - he threw from below (etc.) to above,
- príbenákum* - she (it) threw from below (etc.) to above.

These forms belong to a productive category which we call the Thirteenth Position category. They are formally characterized by the element *-bena-* immediately preceding the Tense morpheme; the common element in their meaning is "from a place which is not the speaker's place to a place which is higher than the speaker's place".

The Tense morpheme of the Future forms is *-r-*. The *a* of the Position morpheme (*-bena-*) has an accent in the Future and Past Tense forms. In this Position category there is no opposition between Present and Recent Past forms but there is only one series of forms having both Recent Past and Present meaning, just like what we found in the Second, Third, Fourth, and Fifth Position categories. Another point of resemblance to these categories is the fact that the Tense morpheme is zero and that the combination of Position morpheme, zero Tense morpheme, and Actor morphemes results in analogous forms. Beside the forms of Future and Past, the Present-Recent Past forms of the Thirteenth Position category show the peculiarity of a slightly different form of the Position morpheme which is *-benana-* with an accent on the second *a* in the First Person, Second Person, and Third Person Masculine, and on the *o* in the Third Person Neutral.

27. The Fourteenth Position category.

To the forms discussed in the §§ 19 to 26 the following can be opposed:

- prípsenáru* - I will throw from below to there,
prípsenáre - you will throw from below to there,
prípsenáram - he will throw from below to there,
prípsenárum - she (it) will throw from below to there,
prípsenanáu - I throw (threw today, yesterday) from below to there,
prípsenanáe - you throw (threw today, yesterday) from below to there,
prípsenanám - he throws (threw today, yesterday) from below to there,
prípsenanóm - she (it) throws (threw today, yesterday) from below to there,
prípsenáku - I threw from below to there,
 etc.

These forms appear to be members of a productive category. Formally, they are characterized by the element *-sena-*, in Future and Past forms, or *-senana-* in Present-Recent Past forms; their common element of meaning is "from a place, lower than that of the speaker, to the place of the person addressed or to a place which is clearly opposed to the speaker's place and within the speakers sight". This category we call the Fourteenth Position category. As to their formal characteristics, the members of this category are parallel to those of the Thirteenth Position category: the morpheme of the Future Tense is *-r-*, there is only one series of forms for Present and Recent Past with Tense morpheme zero, and there is an accent on the last vowel of the Position morpheme.

28. The Fifteenth Position category.

To the forms discussed in the §§ 19 to 27 the following can be opposed:

- prípkenéry* - I will throw from above, from below, or from there to far away,
prípkenéri - you will throw from above (etc.) to far away,
prípkenérím - he will throw from above (etc.) to far away,
prípkenérym - she (it) will throw from above (etc.) to far away,

prípkenenény - I throw (threw today, yesterday) from above (etc.)
to far away,
prípkenenéri - you throw (threw today, yesterday) from above
(etc.) to far away,
prípkeneném - he throws (threw today, yesterday) from above
(etc.) to far away,
prípkenenyém - she (it) throws (threw today, yesterday) from
above (etc.) to far away,
prípkenényi - I threw from above (etc.) to far away,
etc.

These forms belong to a productive category whose members are formally characterized by the element *-kene-* in Future and Past forms and *-kenene-* in Present-Recent Past forms which immediately precedes the Tense morpheme (or the Actor morpheme, if the Tense morpheme is zero) and which has an accent on its last *e* and Actor morphemes of the Apophonic series. The common element of meaning is "from a place within the speaker's sight, but not the speaker's place, to a place outside the speaker's sight". We call this category the Fifteenth Position category.

As we saw above, this category too has one series of forms with zero Tense morpheme and both Present and Recent Past meaning. In the Third Person Masculine form of this series the *i* of the Actor morpheme in the corresponding Future and Past Tense forms is lacking. In the Third Person Neutral form of the Present-Recent Past series the vowel *y* of the Actor morpheme precedes the last *e* of the Position morpheme. These phenomena will be found with all Third Person forms with zero Tense morpheme and Actor morphemes of the Apophonic series.

29. The Sixteenth Position category.

To the forms discussed in the §§ 19 to 28 the following can be opposed:

prípsenény - I will throw from there to below, from above to below,
from far away to below, from above to there, or from
far away to there.
prípsenéri - you will throw from there to below, etc.
prípsenérím - he will throw from there to below, etc.,
prípsenérym - she (it) will throw from there to below, etc.,

pripsenenéy - I throw (threw today, yesterday) from there to
below, etc.,
pripsenenéi - you throw (threw) from there to below, etc.,
pripseneném - he throws (threw) from there to below, etc.,
pripsenenyém - she (it) throws (threw) from there to below, etc.,
pripsenéký - I threw from there to below, etc.,
 etc.

These forms appear to be members of a productive category. Their formal characteristics are the element *-sene-* (in Future and Past Tense forms) or *-senene-* (in Present-Recent Past forms), having an accent on its last *e* and immediately preceding the Tense morpheme or, if the Tense morpheme is zero, the Actor morpheme, and Actor morphemes of the Apophonic series. Their common element of meaning is "from a place which is not the speaker's place to a place within the speaker's sight and lower than that of the speaker, or from a place, higher than that of the speaker or outside the speaker's sight, to the place of the person addressed or another place, within the speaker's sight, which is on the same level as the speaker's place but clearly opposed to it". We call this the Sixteenth Position category.

Future forms belonging to this category have *-r-* as their Tense morpheme. The Tense morpheme of the forms having both Present and Recent Past meaning is zero and in the Third Person Neutral and Third Person Masculine forms the same formal peculiarities are found as described in § 28 for the corresponding forms of the Fifteenth Position category.

30. Survey of the Position categories: two groups.

Looking back to what was stated above on the forms of the Position categories, we see that two groups are clearly visible. The first group is characterized by:

1. Future morpheme *-d-*;
2. Present morpheme *-t-*;
3. Recent Past morpheme *-p-*;
4. the existence of Present and Recent Past as separate Tense categories which also show mutual opposition.

To this first group belong the First, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, and Twelfth Position categories.

The second group is distinguished from the first by:

1. Future morpheme *-r-*;
2. zero morpheme for Present - Recent Past;
3. the existence of one series of forms having both Present and Recent Past meaning.

To this second group belong the Second, Third, Fourth, Fifth, Thirteenth, Fourteenth, Fifteenth, and Sixteenth Position categories.

As far as meaning is concerned, it appears that all Position categories belonging to the first group have the semantic element "in, from, or to the speaker's place", whereas this element does not occur in the meaning of any of the Position categories belonging to the second group.

As to the place of the morphemes which characterize the Position categories, it was stated above that this is "immediately preceding the Tense morpheme". Naturally, something must be added for those forms which have zero Tense morpheme. There the place of the Position morpheme is "immediately preceding the Actor morpheme"; in the forms of the Third Person Masculine and the Third Person Neutral the formal peculiarities are found which are described in § 16 and § 28.

31. The category of the First + Second Person Singular.

To the forms described in §§ 2 to 18 the following can be opposed:

- nguámandám* - you and I will bite (here),
- nguámantám* - you and I bite (here),
- nguámampám* - you and I bit today or yesterday (here),
- nguámamkám* - you and I bit (here),
- nguámambarám* - you and I will bite above,
- nguámambám* - you and I bite (bit today or yesterday) above,
- nguámambakám* - you and I bit above,
- nguámamnarám* - you and I will bite below,
- nguámamkenám* - you and I bite (bit today or yesterday) below,
- nguámamakám* - you and I bit below,
- nguámansarám* - you and I will bite there,
- nguámansám* - you and I bite (bit today or yesterday) there,
- nguámansakám* - you and I bit there,
- nguámanarám* - you and I will bite far away,
- nguámanám* - you and I bite (bit today or yesterday) far away,
- nguámanakám* - you and I bit far away.

The formal element, common to all these words, is found immediately preceding the Position morpheme or, if the latter is zero, immediately

preceding the Tense morpheme. This common element is *-man-* if immediately preceding *t*, *d* or *s*, *-mam-* if immediately followed by *p* or *b*, and *-maŋ-* if immediately followed by *k*; it appears to be *-maŋ-* together with the *ŋ* of the Third Position category and *-man-* together with the *n* of the Fifth Position category. Moreover, all these forms show the ending *-am* which is the same as the morpheme for the Third Person Masculine except for always having an accent, whereas in the forms of the Future and Past of the Second, Third, Fourth, and Fifth Position categories the Position morpheme has no accent. The combination of this *-am* with the Position morpheme in those forms in which the Tense morpheme is zero (Present - Recent Past forms of the Second, Third, Fourth, and Fifth Position categories) is the same as found in the corresponding forms of the Third Person Masculine.

The common semantical element in all these words, represented in the translation of the examples by "you and I", is more accurately described by the formula "the action is attributed to a singular person addressed and the speaker together as an actor".

All these forms appear to be members of a productive category which is of the order of the Actor categories. This category we call the category of the First + Second Person Singular.

In the same category we find:

bekámambarám - you and I will kick above,
teŋgámantám - you and I knock (here),
ŋgrúmanskákám - you and I hung up there,
uómaŋkenjáam - you and I dabble (dabbled today or yesterday) below.

From the form *ŋgrúmanskákám* it appears that root-morpheme-final *ŋ* reacts to an immediately following *m* in the same way as to immediately following *n* or *ŋ*: from the *-ŋ* and the *m-* results a single *-m-*.

To the forms discussed in the §§ 19 to 29 the following can be opposed:

príbмамbedám - you and I will throw from here to above,
príbмамбетám - you and I throw from here to above,
príbмамбепám - you and I threw today or yesterday from here
to above,
príbмамбекám - you and I threw from here to above,
príbманседám - you and I will throw from here to there,
príbмансетám - you and I throw from here to there,
príbмансепám - you and I threw today or yesterday from here
to there,

- pribmansekám* - you and I threw from here to there,
pribmensedím - you and I will throw from here to below,
pribmensetím - you and I throw from here to below,
pribmensepím - you and I threw today or yesterday from here
to below,
pribmensekím - you and I threw from here to below,
pribmenedím - you and I will throw from here to far away,
pribmenetím - you and I throw from here to far away,
pribmenepím - you and I threw today or yesterday from here
to far away,
pribmenekím - you and I threw from here to far away,
pribmenkéndím - you and I will throw from above or from far
away to here,
pribmenkentím - you and I throw from above or from far away
to here,
pribmenkempím - you and I threw today (etc.) from above or from
far away to here,
pribmenkenkím - you and I threw from above or from far away
to here,
pribmambandám - you and I will throw from below to here,
pribmambantám - you and I throw from below to here,
pribmambampám - you and I threw today (etc.) from below to here,
pribmambanókám - you and I threw from below to here,
pribmansandám - you and I will throw from there to here,
pribmansantám - you and I throw from there to here,
pribmansampám - you and I threw today (etc.) from there to here,
pribmansanókám - you and I threw from there to here,
pribmambenarám - you and I will throw from below to above, from
there to above, from far away to above,
pribmambenanám - you and I throw (threw) from below to above
(etc.)
pribmambenakám - you and I threw from below to above (etc.),
pribmansenarám - you and I will throw from below to there,
pribmansenanám - you and I throw (threw) from below to there,
pribmansenakám - you and I threw from below to there,
pribmenkenerím - you and I will throw from above to far away,
from below to far away, from there to far away,
pribmenkeneném - you and I throw (threw) from above to far
away (etc.),
pribmenkenekím - you and I threw from above to far away (etc.),

príbmensenerím - you and I will throw from above to below, from there to below, from far away to below, from above to there, from far away to there,
príbmenseneném - you and I throw (threw) from above to below (etc.),
príbmensenekím - you and I threw from above to below (etc.).

All these forms agree with what was stated above in this § about the First + Second Person Singular. Exceptional, however, are the forms of the Eighth, Ninth, Tenth, Fifteenth, and Sixteenth Position categories in which the formal element which precedes the Position morpheme is *-men-* or *-men-* with the vowel *e* and not with the vowel *a* as is found elsewhere. This appears to have a direct connection with the fact that these Position categories have Actor morphemes of the Apophonic series. We may state as a general rule that verb morphemes which are no root-morphemes and have a vowel *a* in other forms change this *a* into *e* in forms with Actor morphemes of the Apophonic series. This rule is given in a wider formula than is suggested by the materials, given above, but its rightness will be confirmed time and again later on.

32. The category of the Dual in the Second to Sixteenth Position categories.

Opposed to:

nguábáru - I will bite above,
nguábáre - you will bite above,
nguábáram - he will bite above,
nguábárum - she will bite above,

we find:

nguákebáru - we two will bite above,
nguákebáre - you (two or more) will bite above,
nguákebáram - they two (male beings) will bite above,
nguákebárum - they two (not both male beings) will bite above.

The forms of the latter series have in common the element *-ke-* immediately following the root-morpheme and the semantical element of the duality of the actor. To this must be remarked that the form *nguákebáru* never can have the meaning "you and I will bite above" but exclusively has the meaning of the speaker and somebody (or something) else as an actor. To this must be added that the form *nguákebáre* not only has the meaning "you two will bite above" but

also “you (plural) will bite above”. So in this case we find an extra meaning if compared with the other *-ke-* forms. The meaning of *nguákebáram* is such that it can only be used if the actor consists of two male beings, whereas the form *nguákebárum* is used if the actor is dual, does not include the speaker or the person addressed, and does not consist of two persons of the male sex. Therefore, the actor of *nguákebárum* may be one male and one female being, two female beings, etc.

Precisely the same formal element combined with the same semantical characteristics are found with:

- nguákebáu* - we two bite (bit) above,
- nguákebáke* - you (two, plural) bit above,
- nguákesáram* - they two (male) will bite there,
- nguákesóm* - they two (not exclusively male) bite (bit) there,
- nguákenáu* - we two bite (bit) far away,
- nguákekenáe* - you (two or more) bite (bit) below,
- ngrúnkenákam* - they two (male) hung up below,
- tengánkebóm* - they two (not excl. male) knock (knocked) above,
- uókekenám* - they two (male) dabble (dabbled) below,
- pripkebekú* - we two threw from here to above,
- pripkesetí* - you (two, more) throw from here to below,
- pripkebankám* - they two (male) threw from below to here,
- pripkebenanóm* - they two (not excl. male) throw (threw) from below to above, from there to above, from far away to above,
- pripkekenenyém* - they two (not excl. male) throw from above to far away, from below to far away, from there to far away.

It is possible to add more examples ad infinitum, as the category to which they belong appears to be productive. We call this category the Dual category. Its members are in opposition with the forms discussed in the preceding §§. The latter constitute the category of the Singular whose formal characteristic is zero, except in the First + Second Person (see § 31) in which the morpheme *-man-* marks not only the Person but also the number of the Actor.

As the Second Person Dual may also have the meaning of plurality of the actor, the categorical meaning of the Dual is best described as “not singular, not First or Third Person plural”. But we keep the term “Dual”, as this is the best fitting short term.

As the Singular category and the Dual category are in mutual opposition, they are of the same order which we call the order of the number of the actor.

33. Dual forms of the First Position category.

To the Dual forms of § 32 the following can be added :

- nguákedú* - we two will bite (here),
- nguákedé* - you (two or more) will bite (here),
- nguákedám* - they two (excl. male) will bite (here),
- nguákedúm* - they two (not excl. male) will bite (here),
- nguáketú* - we two bite (here),
- nguáketé* - you (two or more) bite (here),
- nguáketám* - they two (excl. male) bite (here),
- nguáketúm* - they two (not excl. male) bite (here),
- nguákepú* - we two bit (today or yesterday) (here),
- nguákepé* - you (two or more) bit (today etc.) (here),
- nguákepám* - they two (male) bit (today etc.) (here),
- nguákepúm* - they two (not excl. male) bit (today etc.) (here),
- nguákekú* - we two bit (here),
- nguákeké* - you (two or more) bit (here),
- nguákekám* - they two (male) bit (here),
- nguákekúm* - they two (not excl. male) bit (here).

If compared with the corresponding Singular forms, these forms, too, show the morpheme *-ke-*. But we also find an accent on the vowel of the Actor morpheme of each of them. There appears to be a rule saying that in Dual forms, corresponding with Singular forms which have an accent only on the root-morpheme, there is an accent on the vowel of the Actor morpheme.

34. The First + Second Person Dual.

Finally, we can add to the Dual forms of § 32 and § 33 the following :

- nguákedám* - we will bite (here),
- nguáketám* - we bite (here),
- nguákepám* - we bit (today or yesterday) (here),
- nguákekám* - we bit (here),
- nguákebarám* - we will bite above,
- nguákebám* - we bite (bit) above,

verbs is a bit more intricate than appears from the examples given in the §§ 32 to 34. For instance, we find, corresponding with the Dual forms:

dýkedu - we two will roast (here),
dýkedé - you (two or more) will roast (here),
 etc.,

the Singular forms:

dýedu - I will roast (here),
dýede - you will roast (here),
dýedam - he will roast (here),
dýedum - she (it) will roast (here),
dýemandám - you and I will roast (here).

In other Position categories we find, corresponding with the Dual forms *dýkebaru* etc., *dýkenáru* etc., *dýkesáru* etc., *dýkenáru* etc., the Singular forms *dýebáru* etc., *dýenáru* etc., *dýesáru* etc., *dýenáru* etc. We see that in all Singular forms the root-morpheme is different from that found in the Dual forms, as it has the vowel-cluster *ýe* in the former and the single vowel *ý* in the latter. This appears to be a general rule for all verbs having, in the Dual forms, a root-morpheme ending in -y, e.g.:

ngýkedú - we two will split (here), etc., but
ngýedu - I will split (here), etc. ;
hrýkedú - we two will scream (here), etc., but
hrýedu - I will scream (here), etc. ;
hrýkedú - we two will abduct (here), etc., but
hrýedu - I will abduct (here), etc.

Because — as will be shown clearly in our further description — the form of the root-morpheme found in the Singular forms is much more limited in its possibilities of occurrence than the form found in the Dual forms, we take the latter as a norm for the root-morpheme.

The form of the root-morpheme occurring in Singular forms we call the Singular Stem of the root-morpheme. Whether a root-morpheme has a special Singular Stem or not, only depends from its phonemical structure. The rule appears to be: All root-morphemes have the same form in both Dual and Singular forms, except:

- a. root-morphemes ending in *-ý*. These have a Singular Stem ending in *-ýe*. (See the instances given above).
- b. root-morphemes ending in *-ýŋ*. These have a Singular Stem ending in *-ýeŋ*. E.g.:

dýŋkedú - we two will tie together (here),
dýendu - I will tie together (here),
kýŋkedú - we two will fling down (here),
kýendu - I will fling down (here),
dýŋkedú - we two will remember (here),
dýendu - I will remember (here),
pýŋkedú - we two will flatulate (here),
pýendu - I will flatulate (here).

- c. root-morphemes ending in *-éy*. These have a Singular Stem ending in *-ýe*. E.g.:

kréykedú - we two will walk around in search (here),
krýedu - I will walk around in search (here),
ŋgedéykedú - we two will fasten (here),
ŋgedýedu - I will fasten (here),
ŋgréykedú - we two will press (here),
ŋgrýedu - I will press (here).

- d. root-morphemes ending in *-áu*. These have a Singular Stem ending in *-uá*. E.g.:

páuikedú - we two will wind (here),
puádu - I will wind (here),
ŋgedáuikedú - we two will shave (here),
ŋgeduádu - I will shave (here).

- e. root-morphemes ending in *-uáu*. These have a Singular Stem ending in *-uá*. E.g.:

kruáuikedú - we two will begin (here),
kruádu - I will begin (here),
uáuikedú - we two will grate (here),
uádu - I will grate (here).

- f. root-morphemes ending in *-óu*. These having a Singular Stem ending in *-úo*. E.g.:

ngedóukedú - we two will draw (here),
ngedúodu - I will draw (here),
pókukedú - we two will blow (here),
púodu - I will blow (here),
trókukedú - we two will look over (here),
trúodu - I will look over (here).

- g. root-morphemes ending in *-uóu*. These have a Singular Stem ending in *-uá*. E.g.:

tuókukedú - we two will cut down (here),
tuádu - I will cut down (here),
uókukedú - we two will wash out (here),
uádu - I will wash out (here),
nguókukedú - we two will prepare (sago) (here),
nguádu - I will prepare (sago) (here).

- h. root-morphemes ending in *-áo*. These have a Singular Stem ending in *-uá*. E.g.:

betáokedú - we two will pull out (here),
betuádu - I will pull out (here),
dekáokedú - we two will bind (here),
dekuádu - I will bind (here),
káokedú - we two will conceal (here),
kuádu - I will conceal (here).

- j. root-morphemes ending in *-uáo*. These have a Singular Stem ending in *-uá*. E.g.:

ngruáokedú - we two will string (here),
ngruádu - I will string (here).

- k. root-morphemes ending in *-áoŋ*. These have a Singular Stem ending in *-uán*. E.g.:

sáoŋkedú - we two will water (here),
suándu - I will water (here),
káoŋkedú - we two will put (here),
kuándu - I will put (here).

- l. root-morphemes ending in *-éi*. These have a Singular Stem ending in *-iá*. E.g.:

ñéikedú - we two will tear (here),
ñiádu - I will tear (here),
préikedú - we two will sow (here),
priádu - I will sow (here),
péikedú - we two will pour out (here),
piádu - I will pour out (here).

- m. root-morphemes ending in *-éin*. These have a Singular Stem ending in *-ián*. E.g. :

tengéinkedú - we two will cut (here),
tengiándu - I will cut (here),
tenéinkedú - we two will peel (here),
teniándu - I will peel (here),
tenéinkedú - we two will appear (here),
teniándu - I will appear (here).

- n. root-morphemes ending in *-yéi*. These have a Singular Stem ending in *-yá*. E.g. :

tekyéikedú - we two will crush (here),
tekyádu - I will crush (here),
nyéikedú - we two will stir (here),
nyádu - I will stir (here),
mengyéikedú - we two will tie together (here),
mengyádu - I will tie together (here).

If the *y* of *-yéi* of the root-morpheme is immediately preceded by a vowel, the Singular Stem ends in *-yiá*, e.g. :

tayéikedú - we two will dig up (here),
tayiádu - I will dig up (here).

- o. root-morphemes ending in *-yéin*. These have a Singular Stem ending in *-yán*. E.g. :

tyéinkedú - we two will work (the ground) (here),
tyándu - I will work (the ground) (here).

- p. root-morphemes ending in *-í*. These have a Singular Stem ending in *-ie*. E.g. :

drikedú - we two will defecate (here),
driedu - I will defecate (here).

- q. root-morphemes ending in *-ín*. These have a Singular Stem ending in *-ien*. E.g.:

ngriñkedú - we two will pull (here),
ngriendu - I will pull (here),
triñkedú - we two will dig (here),
triendu - I will dig (here),
ngesiñkedú - we two will wipe off (here),
ngesiendu - I will wipe off (here).

- r. root-morphemes ending in *-íi*. These have a Singular Stem ending in *-ie*. E.g.:

riikedú - we two will pack (here),
riedu - I will pack (here),
triikedú - we two will break (here),
triedu - I will break (here).

36. The category of the Plural.

Opposed to:

nguáku - I bit (here), and
nguákekú - we two bit (here), we find the form
nguáiku - we bit (here).

Opposed to:

nguákam - he bit (here), and
nguákekám - they two bit (here), we find
nguáikam - they bit (here).

In the same way we find in the Recent Past category, opposed to *nguápu* and *nguákepú*: *nguáipu* - we bit (here), and opposed to *nguápam* and *nguákepám*: *nguáipam* - they bit (here).

With the same semantical opposition we find opposed to:

nguádu and *nguákedú*: *nguáidíu*,
nguátu and *nguáketú*: *nguáítíu*,
nguádam and *nguákedám*: *nguáídíam*,
nguátam and *nguáketám*: *nguáítíam*,
nguábáru and *nguákebaru*: *nguáíbáru*,
nguábáram and *nguákebáram*: *nguáíbáram*,
nguábáu and *nguákebáu*: *nguáíbáu*,

nguábám and *nguákebám* : *nguáibam*,
nguábáku and *nguákebáku* : *nguáibáku*,
nguábákam and *nguákebákam* : *nguáibákam*,
nguánáru and *nguákenáru* : *nguáinaru*,
nguánáram and *nguákenáram* : *nguáináram*,
nguákenáu and *nguákekenáu* : *nguáikenáu*,
nguákenám and *nguákekenám* : *nguáikenám*,
nguánáku and *nguákenáku* : *nguáináku*,
nguánákam and *nguákenákam* : *nguáinákam*,
nguásáru and *nguákesáru* : *nguáisiáru*,
nguásáram and *nguákesáram* : *nguáisiáram*,
nguásáu and *nguákesáu* : *nguáisiáu*,
nguásám and *nguákesám* : *nguáisiám*,
nguásáku and *nguákesáku* : *nguáisiáku*,
nguásákam and *nguákesákam* : *nguáisiákam*,
nguánáru and *nguákenáru* : *nguáiniáru*,
nguánáram and *nguákenáram* : *nguáiniáram*,
nguánáu and *nguákenáu* : *nguáiniáu*,
nguánám and *nguákenám* : *nguáiniám*,
nguánáku and *nguákenáku* : *nguáiniáku*,
nguánákam and *nguákenákam* : *nguáiniákam*.

In the same way, we find opposed to :

uódu and *uókedú* : *uóidiu* - we will dabble (here),
uódam and *uókedám* : *uóidiam* - they will dabble (here),
bekádu and *bekákedú* : *bekáidiu* - we will kick (here),
bekádam and *bekákedám* : *bekáidiam* - they will kick (here),
tengándu and *tengánkedú* : *tengáindiu* - we will knock (here),
tengándam and *tengánkedám* : *tengáindiam* - they will knock (here),
ngrúndu and *ngrúnkedú* : *ngrúindiu* - we will hang up (here),
ngrúndam and *ngrúnkedám* : *ngrúindiam* - they will hang up (here).

All the new forms, introduced here, appear to be members of a productive category. Formally, all members of this category are characterized by an *-i-* immediately following the last vowel of the root-morpheme, whereas, if the first vowel following the root-morpheme is immediately preceded by a consonant which is not velar, labial, or *r*, a second *i* is found in between that vowel and the preceding consonant. The semantical element common to all this words is "plurality of the actor". In the case of forms with the Actor mor-

pheme *-u* the meaning is "the action is attributed to the speaker and two or more others, not including the person(s) addressed, as an actor". In the case of forms having the actor morpheme *-am* the meaning is "the action is attributed to more than two persons or things in which neither the speaker(s) nor the person(s) addressed are included, as an actor". To this must be remarked that, unlike what was found with Singular and Dual forms, differences of sex do not play a role here. We call these forms First Person Plural and Third Person Plural respectively; the whole category to which they belong is called the Plural category. This category is in opposition with those of Singular and Dual and, therefore, is of the Order of the Number of the Actor.

37. The form of the root-morpheme in Plural forms.

Corresponding with *krýedu* - I will walk around in search (here), and *kréykedú* - we two will walk around in search (here), we find *krýidiu* - we will walk around in search (here). In this case the formal difference between the Plural form and the Singular and Dual forms is more than that described in § 36, as in the Plural form the *e* of the root-morpheme is lacking. Precisely the same is found not only in all other Plural forms of this verb but also in the Plural forms of all other verbs having in their Dual forms a root-morpheme ending in *-éy*, e.g.:

ngedéyketú - we two fasten (here),
ngedýitiu - we fasten here,
péykenákam - they two bailed below,
pýinákam - they bailed below,
ngetéykesám - they two (masc.) rub there,
ngetyísiam - they rub there.

It is clear that this peculiarity has something to do with the phonemical structure of the root-morpheme. As more peculiarities of this kind are found, the rule about the formal characteristics of the Plural category asks for an addition. It appears that the following rules must be added:

- a. root-morphemes ending in *-éy* have *-ýi* in Plural forms.
 Examples are already given above.
- b. root-morphemes ending in *-ie* have *-iei* (with shifted accent) in Plural forms, e.g.:

biekedú - we two will open (here),
biéidiu - we will open (here),
siekedú - we two will twist (here),
siéidiu - we will twist (here).

c. root-morphemes ending in *-ýeŋ* have *-ýiŋ* in Plural forms, e.g.:

krýeŋkedú - we two will ring (here),
krýindiú - we will ring (here).

d. root-morphemes ending in *-ýe* have *-ýi* in Plural forms, e.g.:

týekedám - they two (masc.) will push (here),
týidiam - they will push (here).

e. root-morphemes ending in *-ii* have *-ii* in Plural forms, e.g.:

rúikedú - we two will pack (here),
rúidiu - we will pack (here).

f. root-morphemes ending in *-éi* have *-éi* in Plural forms, e.g.:

ŋéikedú - we two will tear (here),
ŋéidiu - we will tear (here),
préiketú - we two sow (here),
préitiu - we sow (here),
mengyéiketú - we two tie together (here),
mengyéitiu - we tie together (here).

g. root-morphemes ending in *-éiŋ* have *-éiŋ* in Plural forms, e.g.:

ŋgyéiŋketú - we two shake (here),
ŋgyéintiu - we shake (here),
tengéiŋketú - we two cut (here),
tengéintiu - we cut (here),
syéiŋketú - we two chop (here),
syéintiu - we chop (here).

h. root-morphemes ending in *-ái* have *-ái* in Plural forms, e.g.:

áiketú - we two shout (here),
áitiu - we shout (here).

j. root-morphemes ending in *-úo* have *-úi* in Plural forms, e.g.:

búoketú - we two hang out (here),
búitiu - we hang out (here),
nengúoketú - we two swallow (here),
nengúitiu - we swallow (here).

Root-morphemes ending in *-uó* follow the normal pattern, e.g.:

uóketú - we two row (here),
uóitiu - we row (here).

- k. root-morphemes ending in *-áo* shift their accent and have *-aói* in Plural forms, e.g.:

betáoketú - we two pull out (here),
betaóitiu - we pull out (here),
dekáoketú - we two bind together (here),
dekaóitiu - we bind together (here),
kráoketú - we two demolish (here),
kraóitiu - we demolish (here).

- l. root-morphemes ending in *-áoŋ* have *-aóiŋ*, with shift of accent, in Plural forms, e.g.:

sáoŋketú - we two water (here),
saóinti - we water (here).

- m. root-morphemes ending in *-óu* have *-ói* in Plural forms, e.g.:

póuketú - we two blow (here),
póitiu - we blow (here),
dróuketú - we two bath (here),
dróitiu - we bath (here),
tuóuketú - we two cut down (here),
tuóitiu - we cut down (here).

- n. root-morphemes ending in *-áu* in which the *a* is not immediately preceded by *u* have *-ói* in Plural forms, e.g.:

páuketú - we two wind (here),
póitiu - we wind (here),
*ŋgedáu*ketú - we two shave (here),
ŋgedóitiu - we shave (here).

- o.* root-morphemes ending in *-úú* have *-úí* in Plural forms, e.g.:

uáuketú - we two grate (here),
uáitíu - we grate (here),
kruáuketú - we two begin (here),
kruáitíu - we begin (here).

- p.* root-morphemes ending in *-áb* have *-ái* in Plural forms, e.g.:

siápketú - we two pour out (here),
siáitíu - we pour out (here),
skápketú - we two squeeze (here),
skáitíu - we squeeze (here).

- q.* root-morphemes ending in *-éb* have *-éi* or *-éb* in Plural forms. The two forms are in free variation. E.g.:

pépketú - we two peel (here),
péitíu or *péptíu* - we peel (here).

- r.* root-morphemes ending in *-íb* have *-íi* or *-íb* in Plural forms. These two forms are in free variation. E.g.:

besípketú - we two bend (here),
besíitíu or *besíptíu* - we bend (here),
prípketú - we two throw (here),
príitíu or *príptíu* - we throw (here).

- s.* root-morphemes ending in *-ýb* have *-ýi* or *-ýib* in Plural forms. These two forms are in free variation. E.g.:

íýpketú - we two shut off (here),
íýitíu or *íýiptíu* - we shut off (here),
pýpketú - we two stab (here),
pýitíu or *pýiptíu* - we stab (here),
betýpketú - we two throw away (here),
betýitíu or *betýiptíu* - we throw away (here).

- t.* root-morphemes ending in *-úb* have *-úi* or *-úib* in Plural forms. These two forms are in free variation. E.g.:

brúpketú - we two fold (here),
brúitíu or *brúiptíu* - we fold (here),

hrúpketú - we two suck (here),
hrúitiu or *hrúiptiu* - we suck (here).

38. Plural forms of the Sixth to Sixteenth Position category.

In § 36 we saw the Plural forms of the First to Fifth Position category. The Plural forms found in the other Position categories appear to follow the same rules, e.g.:

(Sixth) *prüibetú* - we throw from here to above,
 (Seventh) *prüisietú* - we throw from here to there,
 (Eighth) *prüisietim* - they throw from here to below,
 (Ninth) *prüinietim* - they throw from here to far away,
 (Tenth) *prüikentý* - we throw from above (from far away) to here,
 (Eleventh) *prüibántu* - we throw from below to here,
 (Twelfth) *prüisiántam* - they throw from there to here,
 (Thirteenth) *prüibenanáu* - we throw from below (etc.) to above,
 (Fourteenth) *prüisienanáam* - they throw from below to there,
 (Fifteenth) *prüikenenény* - we throw from above (etc.) to far away,
 (Sixteenth) *prüisieneném* - they throw from above to below (etc.).

However, there is one exception to this rule: side by side with the regular, predictable, forms of the Tenth Position category:

prüikendý, prüikendim,
prüikentý, prüikentim,
prüikempý, prüikempim,
prüikenký, prüikenkím,

there occur, as free variants, forms having an *i* immediately following the *k* of the Position morpheme:

prüikiendý, prüikiendim,
prüikientý, prüikientim,
prüikiempý, prüikiempim,
prüikienký, prüikienkím.

This is contradictory to the rule, as formulated in § 36.

39. Iterative forms of the First Position category.

The Iterative category and the Momentary category.

In opposition with the forms:

Verh. dl. 44

nguátu - I bite (here),
nguámantám - you and I bite (here),
nguáketú - we two bite (here),
nguáitiu - we bite (here),

(and other forms of the Present - First Position categories), we find:

nguákátu - I bite repeatedly (here),
nguámankatám - you and I bite repeatedly (here),
nguákekátu - we two bite repeatedly (here),
nguáikátu - we bite repeatedly (here),
 (etc.).

In the same way, we find opposed to *nguápu* - I bit (today, yesterday) (here), (etc.); *nguákápu* - I bit repeatedly (today, yesterday) (here), (etc.). And, opposed to *nguáku* - I bit (here), etc., there is *nguákáku* - I bit repeatedly (here), etc.

All these new forms constitute a productive category whose members are characterized by the formal element *-ka-* immediately preceding the Tense morpheme. The *a* of this *-ka-* has an accent, except in the First + Second Person forms which have an accent on the Actor morpheme.

The semantical element common to these words is "repeatedness of the action"; sometimes it may be described as "successiveness of the action" (if the actor is plural), e.g. *nguáikákam* - they bit repeatedly, or: they bit one after another.

This category we call the Iterative category.

Of course, the forms which are not formally characterized and are in opposition with the Iterative forms also constitute a category whose members have in common the semantical element "the action is continuous, uninterrupted, or confined to one moment". This we call the Momentary category.

No *ka-*forms are found corresponding with the Future forms (without *-ka-*). So in the Iterative category, Tense categories are limited to Present, Recent Past, and Past.

40. Iterative forms of the other Position categories.

The members of the Iterative category belonging to Position categories other than the First show some peculiarities in their forms which will be treated here.

Opposed to :

nguábáku - I bit above,
nguákebáku - we two bit above,
nguáibáku - we bit above,
 etc.

we find :

nguábekáku - I bit repeatedly above,
nguákebekáku - we two bit repeatedly above,
nguáibekáku - we bit repeatedly above,
 etc.

We see that in the Iterative forms the morpheme of the Second Position category is *-be-*.

Just like the Momentary forms of the Position categories of the second group (see § 30) the corresponding Iterative forms show no opposition between Present and Recent Past. But the morpheme of the Present - Recent Past tense appears to be *-t-* in the Iterative forms (not zero like in the Momentary forms), e.g. :

nguábekátu - I bite (bit) repeatedly above,
nguámambekatám - you and I bite (bit) repeatedly above,
nguákebekátu - we two bite (bit) repeatedly above,
nguáibekátu - we bite (bit) repeatedly above.

The Iterative forms of the Third Position category are :

Present - Recent Past *nguángátu* - I bite (bit) repeatedly below,
 etc.
 Past tense *nguángáku* - I bit repeatedly below,
 etc.

In these forms the Position morpheme is *-ŋ-*, whereas the Iterative morpheme is *-g-*.

The only formal peculiarity of the Iterative forms of the Fourth Position category is their Position morpheme which is *-s-*, e.g. :

nguáskátu - I bite (bit) repeatedly there,
nguáskáku - I bit repeatedly there.

The combination of the morphemes of the Iterative and of the Fifth

Position category appear to result in *-nenga-* as the forms in question are:

nguánengátu - I bite (bit) repeatedly far away,

nguánengáku - I bit repeatedly far away,

etc.

The Iterative forms of the Sixth Position category do not show any peculiar features, e.g.:

pribekátu - I throw repeatedly from here to above,

pribekápu - I threw (today, yesterday) repeatedly from here to
above,

pribekáku - I threw repeatedly from here to above.

They are the same as the corresponding forms of the Second Position category except for the forms with tense morpheme *-t-* having for the Sixth Position category only the meaning of the Present tense, as in this Position category there is a separate Recent Past tense.

The Iterative forms of the Seventh Position category are the same as those of the Fourth Position category, except for the existence of a separate Recent Past tense, e.g.:

prípskátu - I throw repeatedly from here to there,

prípskápu - I threw (today, yesterday) repeatedly from here to there,

prípskáku - I threw repeatedly from here to there.

In the Eighth Position category we find Iterative forms like:

prípskéty - I throw repeatedly from here to below,

pribmensketím - you and I throw repeatedly from here to below,

prípkeskéty - we two throw repeatedly from here to below,

prúiskéty - we throw repeatedly from here to below,

prípsképy - I threw (today, yesterday) repeatedly from here to below,

prípskéky - I threw repeatedly from here to below,

etc.

We see that in all these forms the Iterative morpheme has the vowel *e*. This appears to be the case in all forms with Actor morphemes of the Apophonic series. In the Iterative forms as in the Momentary forms, the formal opposition between the Seventh and Eighth Position categories consists in difference of vowels only.

In the Ninth Position category we find Iterative forms like:

príbnengéty - I throw repeatedly from here to far away,
príbnengépy - I threw (today, yesterday) repeatedly from here to
 far away,
príbnengéky - I threw repeatedly from here to far away.

The difference between the Iterative forms of this Position category and those of the Fifth consists in different vowels and the existence of a separate Recent Past tense.

In the Tenth Position category we find Iterative forms like:

príngentý - I throw repeatedly from above (far away) to here,
príngempý - I threw (today, yesterday) repeatedly from above (far
 away) to here,
príngenký - I threw repeatedly from above (far away) to here,
 etc.

In these forms the Iterative morpheme and the Position morpheme appear to result in the formal element *-ngen-*. This element does not have an accent. Just as in the Momentary forms, there is always an accent on the Actor morpheme. A striking feature of the given examples is the absence of the final *-b* of the root-morpheme. The same is found in all Iterative Tenth Position forms of verbs that normally have their root-morpheme ending in *-b*, e.g.:

betýngentím - he throws away repeatedly from above to here,
 if compared with the corresponding Momentary form:

betýpkentím - he throws away from above to here.

The rule appears to be that all root-morphemes which end in *-b* drop this *b* if they are immediately followed (within the word) by a consonant cluster beginning with a nasal.

As Iterative forms of the Eleventh Position category we find:

príbekántu - I throw repeatedly from below to here,
príbekámpu - I threw (today, yesterday) repeatedly from below
 to here,
príbekánkú - I threw repeatedly from below to here,
 etc.

On ground of these forms one might say that the element *-baŋ-* that in § 24 was indicated as the morpheme of the Eleventh Position category consist of an element *-ba-* (that behaves in precisely the same way as the morpheme of the Second Position category) and an element *-ŋ-* and that in the Iterative forms these two elements are separated by the Iterative morpheme. One might also say that the morpheme of the Iterative is infixed in the morpheme of the Position category.

A similar phenomenon is found with the Iterative forms of the Twelfth Position category, e.g.:

pripskántu - I throw repeatedly from there to here,
pripskámpu - I threw (today, yesterday) repeatedly from there
to here,
pripskánku - I threw repeatedly from there to here,
etc.

Here the Position morpheme *-saŋ-* is split by the infixed Iterative morpheme.

The Iterative forms of the Thirteenth Position category are comparable with those of the Fifth Position category, e.g.:

pribenengátu - I throw (threw) repeatedly from below (there, far
away) to above,
pribenengáku - I threw repeatedly from below (there, far away)
to above.

The same can be said of the Iterative forms of the Fourteenth Position category, e.g.:

pripsenengátu - I throw (threw) repeatedly from below to there,
pripsenengáku - I threw repeatedly from below to there.

The same comparability in form with the Iterative forms of the Fifth Position category is found with the Iterative forms of the Fifteenth Position category, e.g.:

pripkenengéty - I throw (threw) repeatedly from above (below,
there) to far away,
pripkenengéky - I threw repeatedly from above (below, there) to
far away.

The *e*-variant, occurring here instead of the *a*-variant, is due to the

fact that the Actor morphemes are of the Apophonic series (cf. what is said about this with reference to the Eighth Position category in this §).

The Iterative forms of the Sixteenth Position category are fully comparable with those of the Fifteenth Position category, e.g.:

prípsenengéty - I throw (threw) repeatedly from above (there, far away) to below, from above (far away) to there,
prípsenengéky - I threw repeatedly from above to below, etc.

41. The Masculine Object category.

Opposed to the series:

suámbáru - I will water above,
 etc.,
sáonkebáru - we two will water above,
 etc.,
saóimbáru - we will water above,
 etc.,

we find the series:

suánrebáru - I will water him above,
 etc.,
sáonkrebáru - we two will water him above,
 etc.,
saóinrebáru - we will water him above,
 etc.

In the same way we find in other Tenses, as opposed to *suámbáu* etc. and *suámbáku* etc.:

suánrebáu - I water (watered) him above, etc.,
suánrebáku - I watered him above, etc.

In other Position categories, opposed to *suánáru* etc., *suánkenáu* etc., *suánsáru* etc., *suánáru* etc., we find:

suánrenáru - I will water him below, etc.,
suánrekenáu - I water (watered) him below etc.,
suánresáru - I will water him there, etc.,
suánrenáru - I will water him far away, etc.

Here we find members of a productive category, formally marked by the element *-re-* which has its place immediately following the root-morpheme except in those forms which contain the Dual morpheme *-ke-* which then precedes the element *-re-* and takes the form *-k-*.

The common semantical element can be described as "the action is connected with an object, consisting of one or two male beings, not identical with the speaker or the person addressed". If the object is explicitly mentioned or not, does not make any difference for the use of these *-re-* forms. We call this category the category of the Masculine Object.

The Masculine Object forms of the Sixth to Sixteenth Position categories answer fully to the description given above, e.g.:

pribrebedú - I will throw him from here to above,
pribreseté - you throw him from here to there,
pribresenanám - he throws (threw) him from below to there.

But the corresponding Momentary forms of the First Position category show some peculiarities:

suányráru - I will water him (here),
 etc.,
suányremandám - you and I will water him (here),
 etc.,
saónkráru - we two will water him (here),
 etc.,
saóínráru - we will water him (here),
 etc.,
suányrátu - I water him (here),
 etc.,
suányrápu - I watered him here (today, yesterday),
 etc.,
suányráku - I watered him (here),
 etc.

We see that the Masculine Object morpheme is *-ra-* with an accent on the *a*, if immediately preceding the Tense morpheme. In the case of Future forms the Tense morpheme is *-r-*.

The Masculine Object forms of the Iterative all follow the rule given above, e.g.:

suányrekátu - I water him repeatedly (here),
sáonkrebekáke - you (du.) watered him repeatedly above,
saóinyreskátam - they water him there repeatedly,
príbrengentím - he throws him repeatedly from above to here.

42. The Plural Object category.

Opposed to the series:

suándu - I will water (here),
 etc. etc.

and the series:

suányráru - I will water him (here),
 etc. etc.

we find the following forms:

sáondáru - I will water them (here),
sáondáre - you will water them (here),
sáondáram - he will water them (here),
sáondárum - she (it) will water them (here),
sáondemandám - you and I will water them (here),
saóindiáru - we (we two) will water them (here),
saóindiáre - you (you two) will water them (here),
saóindiáram - they (they two, masc.) will water them (here),
saóindiárum - they two (non-masc.) will water them (here),
saóindiarám - you and I (you and we) will water them (here).

Opposed to:

suámbáru - I will water above,
 etc.,
suányrebáru - I will water him above,
 etc.,

we find:

sáondebáru - I will water them above,
 etc.

For other Tenses and other Position categories we find:

sáondátu - I water them (here),
sáondebáu - I water (watered) them above,
sáondenáru - I will water them below,
sáondesáru - I will water them there,
sáondenáru - I will water them far away,
pribdebedú - I will throw them from here to above,
pripdesedú - I will throw them from here to there,
 etc. etc.

There also are the corresponding Iterative forms :

sáondekátu - I water them repeatedly (here),
sáóndiekátu - we (we two) water them repeatedly (here),
sáóndiekáte - you (dual or plural) water them repeatedly (here),
sáóndiekátam - they (they two, masc.) water them repeatedly (here),
sáóndiekátum - they two (non-masc.) water them repeatedly (here),
sáóndiekátám - you and I (you and we) water them repeatedly (here),
sáondebekátu - I water (watered) them repeatedly above,
sáondengátu - I water (watered) them repeatedly below,
pribdengenty - I throw them repeatedly from above to here,
 etc.

All these new forms belong to a productive category whose members have in common the semantical element "the action is connected with a plural object". Formally, the members are characterized by an element *-de-* that immediately follows the root-morpheme and takes the form *-da-* whenever it is immediately followed by the Tense morpheme.

This category we call the Plural Object category. It is in opposition with the Masculine Object category and also with those verbal forms which are not marked as to object. These unmarked forms are used, if the speaker thinks the action connected with a singular or dual object which does not consist of one or two male beings, but also if the action is not thought being connected with any object. These unmarked forms constitute the category of the Unspecified Object.

The members of the Plural Object category ask for further discussion. The first striking fact about them is that with those verbs which have a special Singular stem for the Unspecified Object and Masculine Object forms (see § 35) this special form of the root-morpheme does not occur in Plural Object forms. Further, it must be observed that all non-Singular forms have the *-i-* which we came to know as Plural marker and also the special form of the root-

morpheme which belongs to Plural forms. However, as far as their meaning is concerned, they are no typical Plural Actor forms, as they may have the meaning of Dual Actor, in the case of the Third Person Neutral even exclusively so. In the Plural Object category there is no opposition between Dual and Plural of the Actor, except with the non-masculine Third Person for which there is a separate form having only Dual meaning, whereas there is only one form for both Third Person Plural (regardless of sex) and Third Person Dual Masculine.

As to the meaning of the members of the Plural Object category, it must be remarked that in case of a dual object (not including the speaker or the person addressed) the speaker has a free choice between forms of this category and those of the Unspecified Object or Masculine Object categories.

43. The Durative category.

To *priptu* - I throw (here), and all the other Present forms with root-morpheme *prib-* which we have seen in the preceding §§ the following forms can be opposed :

- priptemty* - I am throwing (here),
- priptemti* - you are throwing (here),
- priptemtim* - he is throwing (here),
- priptemtým* - she (it) is throwing (here),
- priptementim* - you and I are throwing (here),
- priütiemty* - we (we two) are throwing (here),
- priütiemti* - you (du., plur.) are throwing (here),
- priütiemtim* - they (they two, masc.) are throwing (here),
- priütiemtým* - they two (non-masc.) are throwing (here),
- priütiemtim* - you and I (you and we) are throwing (here),
- priptembéy* - I am throwing above,
- etc.
- priptemembém* - you and I are throwing above,
- priütiembéy* - we (we two) are throwing above,
- etc.,
- priptemkenéy* - I am throwing below,
- etc.,
- priptemséy* - I am throwing there,
- etc.,
- priptemnény* - I am throwing far away,
- etc.,

- priptembetý* - I am throwing from here to above,
 etc.,
priptemsetý - I am throwing from here to there,
 etc.,
priptemsetý - I am throwing from here to below,
 etc.,
priptemnetý - I am throwing from here to far away,
 etc.,
priptemkentý - I am throwing from above (from far away) to here,
 etc.,
priptembénty - I am throwing from below to here,
 etc.,
priptemsény - I am throwing from there to here,
 etc.,
priptembenény - I am throwing from below (there, far away) to
 etc., above,
priptemsenenény - I am throwing from below to there,
 etc.,
priptemkenenény - I am throwing from above (there, below) to far
 etc., away,
priptemsenenény - I am throwing from above (there, far away) to
 etc. below, from above (far away) to there,

All these forms belong to a productive category whose members are characterized by the formal element *-tem-* which has its place immediately following the root-morpheme, and Actor morphemes of the Apophonic series. The semantical element they have in common is "the action continues". We call this category the Durative category.

In the Durative category there is no formal opposition between forms for dual Actor and those for Plural Actor, except for the Third Person Neutral, whereas all non-Singular forms are, formally, Plural forms, just like what we found in the Plural Object category. From forms like *sáontemty* - I am watering (here), it appears that those verbs which have a special Singular stem in the Unspecified Object and Masculine Object category, do not show this special form of the root-morpheme in the Singular forms of the Durative. This also is parallel to what is found in the Plural Object category.

The Durative category is in opposition not only with the category of the Unspecified Object but also with the Masculine Object and Plural Object categories and, therefore, is of the same order. Though

this is seldom the case, an object may be mentioned in a sentence in which the predicate is a Durative form. This object, however, does not have any influence on the verb-form, in other words: Durative forms are indifferent to sex or number of the object.

It might be said that the Durative category is opposed to the whole group of non-Durative categories in which the opposition of the three object categories plays a role. But on purely formal grounds the Durative category can be seen in one line with the categories of Unspecified Object, Masculine Object, and Plural Object.

It must be observed that those Position categories whose mutual formal opposition in the categories of Unspecified, Masculine, and Plural Object consists only in the difference of the vowels of the Actor morphemes, lack this formal difference in the Durative forms, as these all have Actor morphemes of the Apophonic series. The result is that there is no formal difference between the Seventh and the Eighth or between the Fourteenth and the Sixteenth Position categories in the Durative forms.

In most cases also the forms of the First + Second Person and the Third Person Plural are the same, because all Actor morphemes have the accent, except those of the Eleventh and Twelfth Position categories in which this is only the case with First + Second Person forms. In these two Position categories there is a formal difference between the First + Second Person and Third Person Plural forms, e.g.:

prütiembéntim - they are throwing from below to here,
prütiembéntim - you and we are throwing from below to here,
prütiemséntim - they are throwing from there to here,
prütiemséntim - you and we are throwing from there to here.

44. Iterative forms of the Durative.

Corresponding with the Durative forms of § 43 there are also Iterative forms:

prüptemkéty - I am throwing repeatedly (here),
prüptembekéty - I am throwing repeatedly above,
prüptemngéty - I am throwing repeatedly below,
prüptemskéty - I am throwing repeatedly there,
prüptemnengéty - I am throwing repeatedly far away,
prüptembekéty - I am throwing repeatedly from here to above,
prüptemskéty - I am throwing repeatedly from here to there,

A form like *príptemengéty* may have the meaning "I am throwing repeatedly (here)" (First Position category) but also "I am throwing repeatedly below" (Third Position category).

For the First and Tenth Position categories the *g*-variants are more frequently used than those with *-k*.

45. Tense categories in the Durative.

Corresponding with the Present forms of the Iterative of the Durative we find Past tense forms: *príptemkéky* - I was throwing repeatedly (here), etc., and for the Position categories of the first group also Recent Past forms: *príptemképy* - I was (today, yesterday) throwing repeatedly (here), etc. But Future forms do not occur. Probably, to the Nimboran speakers' mind the categorial meaning of the Future is incompatible with that of the Durative.

In the Momentary of the Durative, however, we only find the series of forms which, in § 43, we came to know as Present forms. And Present forms they are, both formally and semantically, but a direct opposition with other Tenses is absent.

Maybe connected with this is the fact that in the semantical opposition between Momentary and Iterative forms of the Durative elements are found which do not occur with the corresponding non-Durative forms. First, the Momentary forms (of the Durative) also have the meaning of "continuation of an action in the future". The Present forms of the Iterative of the Durative, on the contrary, have the meaning "continuation in the present of an action, begun in the past", e.g.:

dámtemtý - I am eating (and will go on eating),

dámtmengéty - I am (still) eating (have not yet finished eating).

Probably connected with the absence of corresponding forms in the Momentary category is the fact that Past and Recent Past forms of the Iterative of the Durative can be used to denote a continual action in the past without any element of repetition being present.

46. The category of the Infinitive.

Opposed to:

nguádu - I will bite (here),

nguákebáu - we two bite above,

nguátemngétim - he is biting repeatedly below,

and all other forms of this verb, discussed so far, we find:

nguá - 1° (to) bite, 2° bite!, 3° bitten.

There appears to exist a whole series of such forms, e.g.:

kin - to pack, pack! packed.

Together, they constitute a productive category. Their formal mark is the absence of any categorial morpheme: they consist of a bare root-morpheme. The common semantical element is less easy to describe. It appears that some heterogeneous semantical elements are found side by side, distinguishable in the different cases in which the forms in question are used:

1° just the absence of all the other categorial meanings, in cases like:

no po nguá - he wants to bite,

no nguá besám - I refuse to bite.

2° a curt order: *nguá* - bite! For a more polite order, a friendly request etc. the Second Person Future is used:

nguáde - please, bite! have the goodness to bite!

3° a state, caused by being submitted to the action, attributed to a noun:

ndie hru me nguá - that man is already bitten,

hru nguá be ndie - the bitten man is there.

This use is the same as that of adjectives, e.g.:

ndie hru krapó - that man is bad,

hru krapó be ndie - the bad man is there.

This category we call the category of the Infinitive.

The indifference of Infinitive forms in regard to the other categories is seemingly absent in cases like:

táo - to put many objects,

dáo - to give (take) many objects,

ráu - to roast many objects,

préi - to bring many objects,

as these could be thought to be connected with the Plural Object category. However, we must assume that these are Infinitives of verbs,

having the semantical element of "many objects" as part of their lexical meaning. In the cases of *táo*, *ráu*, and *préi* this becomes quite clear from other forms which, without being Plural Object forms, still possess the plural object-element in their meaning. The fact that *táo*, *dáo*, *ráu*, and *préi* and words, morphologically related to them, are used, by way of suppletion (see Ch. I, § 10), instead of the (non-existing) forms of the Plural Object category of *téy* - put, *téi* - take, give, *déy* (*dy-*) - roast, and a series of forms with zero root-morpheme to which belongs *rebedú* - I will bring from here to above, respectively, is not relevant, as the latter have no morphological connections with the first.

In the examples, cited above, the form of the Infinitive is the same as that of the root-morpheme in its combinations with the various morphemes but not the same as the special Singular or Plural stem, found with some root-morphemes. This appears to be the case with the great majority of Infinitive forms, e.g.:

<i>nengá</i> - to light (etc.),	<i>uó</i> - to dabble (etc.),
<i>tengán</i> - to knock (etc.),	<i>sebúo</i> - to sew (etc.),
<i>sam</i> - to put inbetween (etc.),	<i>tráo</i> - to lift (etc.),
<i>skýe</i> - to smoke (etc.),	<i>dóu</i> - to start (etc.),
<i>bíe</i> - to open (etc.),	<i>hruñ</i> - to break (etc.),
<i>ngrin</i> - to draw, trail (etc.),	<i>siáb</i> - to pour out (etc.),
<i>tengéin</i> - to cut (etc.),	<i>peb</i> - to peel (etc.),
<i>ngedéy</i> - to fasten (etc.),	<i>pyb</i> - to stick (etc.),
<i>temýn</i> - to stab (etc.),	<i>brub</i> - to fold (etc.).

But in correspondence with root-morphemes, ending in *-í*, we find Infinitives with final *-ii*, e.g.:

<i>drikedú</i> - we two will defecate (here),
<i>drii</i> - to defecate (etc.).

Corresponding with root-morphemes, ending in *-ý* we find the Infinitives ending in *-éy*, e.g.:

<i>dýkedú</i> - we two will roast (here),
<i>déy</i> - to roast (etc.).

Corresponding with root-morphemes ending in *-ýen* we find Infinitives ending in *-ýn*, e.g.:

consonant immediately followed by an *e* which is immediately followed by another consonant, has the same form as that Infinitive, e.g.

bekéi - 1° to rise, 2° in order to rise,
nenjúo - 1° to swallow, 2° in order to swallow,
renjúe - 1° to show, 2° in order to show.

A Final Infinitive, corresponding with an Infinitive which has an initial stop or *s* immediately followed by a vowel which immediately precedes a nasal or a vowel which is immediately followed by a nasal, has the initial consonant of the Infinitive doubled with, in between, the vowel *e* immediately followed by a nasal homorganic to that consonant, e.g.

<i>bun</i> - to wait,	<i>bembún</i> - in order to wait,
<i>dyn</i> - to tie together,	<i>dendýn</i> - in order to tie together,
<i>dam</i> - to eat,	<i>dendám</i> - in order to eat,
<i>kin</i> - to crush,	<i>kenkin</i> - in order to crush,
<i>son</i> - to water,	<i>sensón</i> - in order to water,
<i>tengán</i> - to knock,	<i>tentengán</i> - in order to knock,
<i>tenéin</i> - to peel,	<i>tentenéin</i> - in order to peel,
<i>déin</i> - to stretch out oneself,	<i>dendéin</i> - in order to stretch out oneself,
<i>doun</i> - to draw,	<i>dendoun</i> - in order to draw.

If the initial consonant of an Infinitive is separated from a following nasal by more than two vowels, the doubled consonant of the corresponding Final Infinitive is separated by *e* without nasal, e.g.

<i>syéin</i> - to cut loose,	<i>sesyéin</i> - in order to cut loose,
<i>tyéin</i> - to even out (ground),	<i>tetyéin</i> - in order to even out.

If an Infinitive has an initial consonant-cluster, the corresponding Final Infinitive has reduplication of the first consonant only, e.g.

<i>brub</i> - to fold,	<i>bebrúb</i> - in order to fold,
<i>drii</i> - to defecate,	<i>dedrii</i> - in order to defecate,
<i>prib</i> - to throw,	<i>peprib</i> - in order to throw,
<i>práu</i> - to dance,	<i>pepráu</i> - in order to dance,
<i>spóu</i> - to unloosen,	<i>sespóu</i> - in order to unloosen,
<i>skab</i> - to pinch,	<i>seskáb</i> - in order to pinch,
<i>skréry</i> - to shake,	<i>seskréry</i> - in order to shake,
<i>tréry</i> - to pursue,	<i>tetréry</i> - in order to pursue.

In accordance with the rule given above, the *e* in between the reduplicated consonant of the Final Infinitive is followed by a nasal homorganic to that consonant, if in the Infinitive the vowel, immediately following the initial consonant-cluster, is followed by a nasal, either directly or with only one vowel intervening, e.g.

<i>kryn</i> - to ring,	<i>kenkrýn</i> - in order to ring,
<i>trin</i> - to dig,	<i>tentrin</i> - in order to dig,
<i>skin</i> - to strangle,	<i>senskin</i> - in order to strangle,
<i>prin</i> - to fly,	<i>pemprin</i> - in order to fly.

But if the first consonant of an initial cluster of and Infinitive is *n*, the Final Infinitive has the whole cluster reduplicated, e.g.

<i>ngedáu</i> - to shave,	<i>ngenggedáu</i> - in order to shave,
<i>ngedéy</i> - to attach,	<i>ngenggedéy</i> - in order to attach,
<i>ngréy</i> - to press,	<i>ngrenggréy</i> - in order to press.

If an Infinitive has initial *hr-*, the *h* is dropped and the *r* is reduplicated in the Final Infinitive, e.g.

<i>hréy</i> - to scream,	<i>reréy</i> - in order to scream,
<i>hri</i> - to go down,	<i>rerí</i> - in order to go down,
<i>hrub</i> - to suck,	<i>rerúb</i> - in order to suck,
<i>hrun</i> - to break,	<i>rerún</i> - in order to break.

If an Infinitive has initial *a*, the corresponding Final Infinitive has the same form as the Infinitive, e.g.

<i>ái</i> - to shriek,	<i>ái</i> - in order to shriek,
<i>apián</i> - 1° to fill up, 2° in order to fill up.	

If an Infinitive has initial *i* immediately followed by a consonant, this *i* is doubled in the corresponding Final Infinitive, e.g.

<i>iró</i> - to fill,	<i>iiró</i> - in order to fill,
<i>ingáo</i> - to wash,	<i>iingáo</i> - in order to wash,
<i>isiú</i> - to shake,	<i>iisiú</i> - in order to shake.

If an Infinitive has initial *i* immediately followed by a vowel, this *i* is reduplicated with an *e* in between in the corresponding Final Infinitive, e.g.

íáo - to rub,
íásiñ - to bathe,

ieiáo - in order to rub,
ieiásiñ - in order to bathe.

If an Infinitive has initial *u*, this *u* is doubled in the corresponding Final Infinitive, except if the initial *u* of the Infinitive is immediately followed by a second *u* in which case the Final Infinitive has the same shape as the Infinitive, e.g.

uáu - to rasp,
uó - to dibble,
uóu - to row,
uúñ - to weed,
uúo - to answer,

uuáu - in order to rasp,
uuó - in order to dibble,
uuóu - in order to row,
uúñ - in order to weed,
uúo - in order to answer.

If an Infinitive has initial *y*, the corresponding Final Infinitive has an *u* immediately following this *y*, e.g.

yá - to look for,
yé - to signal,

yuá - in order to look for,
yué - in order to signal.

48. The First Secondary Verb Category.

Opposed to

biedum - she (it) will open (here),
bierárum - she (it) will open him (here),
biedárum - she (it) will open them (here),

we find the forms *biedarúm* and *bierarúm*, both meaning "she (it) will be opened (here), will (fall) open (here)".

And opposed to

krúodu - I will bury (here),
krúoráru - I will bury him (here),
króudáru - I will bury them (here),

we find

króurarú and *króudarú* - I will be buried (here).

What we have found appears to be a productive category which, on further investigation, shows the following possibilities of other forms:

króurarú or *króudarú* - I will be buried (here),
króuraré or *króudaré* - you will be buried (here),
króurarám or *króudarám* - he will be buried (here),
króurarúm or *króudarúm* - she (it) will be buried (here),
króudemandám - you and I will be buried (here),
króudiarú - we two will be buried (here),
króudiaré - you two will be buried (here),
króudiarám - they two (male) will be buried (here),
króudiarúm - they two (female) will be buried (here),
króukrarám - they two (inanimate things) will be buried (here),
króudiemandám - you and we will be buried (here),
króudiemándu - we will be buried (here),
króudiemánde - you (plur.) will be buried (here),
króudiarám - they (animate) will be buried (here),
króurarám - they (inanimate) will be buried (here).

In other Tense categories of the First Position category we find:

króuratú or *króudatú* - I am buried (here),
 etc.,
króurapú or *króudapú* - I was buried (here) (today, yesterday),
 etc.,
króurakú or *króudakú* - I was buried (here),
 etc.

In the Second Position category:

króurebarú or *króudebarú* - I will be buried above,
króurebaré or *króudebaré* - you will be buried above,
króurebarám or *króudebarám* - he will be buried above,
króurebarúm or *króudebarúm* - she (it) will be buried above,
króudemambarám - you and I will be buried above,
króudiebarú - we two will be buried above,
króudiebaré - you two will be buried above,
króudiebarám - they two (male) will be buried above,
króudiebarúm - they two (female) will be buried above,
króukrebarám - they two (inanimate) will be buried above,
króudiemambarám - you and we will be buried above,
króudiemambáru - we will be buried above,
króudiemambáre - you (plur.) will be buried above,
króudiebarám - they (animate) will be buried above,
króurebarám - they (inanimate) will be buried above,

further :

króurebáu or *króudebáu* - I am (was) buried above,
 etc.,
króurebakú or *króudebakú* - I was buried above,
 etc.

In the Third Position category :

króurenarú or *króudenarú* - I will be buried below,
 etc.,
króurekenáu or *króudekenáu* - I am (was) buried below,
 etc.,
króurenakú or *króudenakú* - I was buried below,
 etc.

In the Fourth Position category :

króuresarú or *króudesarú* - I will be buried there,
 etc.,
króuresáu or *króudesáu* - I am (was) buried there,
 etc.,
króuresakú or *króudesakú* - I was buried there,
 etc.

In the Fifth Position category :

króurenarú or *króudenarú* - I will be buried far away,
 etc.,
króurenáu or *króudenáu* - I am (was) buried far away,
 etc.,
króurenakú or *króudenakú* - I was buried far away,
 etc.

Forms of the Sixth to Sixteenth Position categories appear not to exist in this category, nor do Iterative forms.

Examination of these forms discloses the following facts :

- 1° the root-morpheme has always the shape of the Infinitive and never shows a special Singular or Plural stem ;
- 2° the forms are all characterized by an element *-ra-* or *-da-* which is *-re-* or *-de-* resp., if not immediately preceding the Tense morpheme ;

- 3° there are separate forms for inanimate actor in the Third Person Dual and Plural, and also for the Second Person Plural;
- 4° in the Singular, except for the First + Second Person, *ra-* and *da-*forms are in free variation but for the Third Person Inanimate Dual and the Third Person Inanimate Plural only *ra-*forms occur, whereas in all the other Persons of Dual and Plural only *da-*forms are found;
- 5° the First + Second Person Singular, the First + Second Person Dual (Plural), the First Person Plural, and the Second Person Plural always have an element *-man-* preceding the Position morpheme, or the Tense morpheme resp.;
- 6° the Third Person Inanimate Dual is marked off against the corresponding Singular and Plural forms by the element *-k-* and the Actor morpheme *-ám*, but the Third Person Inanimate Plural is characterized by the Actor morpheme *-ám* only;
- 7° the other non-Singular forms are characterized by *-i-* but only following the *d* of the categorial morpheme and not in the root-morpheme;
- 8° the Future morpheme is always *-r-*, except if the element *-man-* immediately precedes (then it is *-d-*);
- 9° the Actor morphemes have an accent in all forms, except those of the First Person Plural, the Second Person Plural, and of the First and Second Person Singular and Dual of the Present - Recent Past in the Second, Third, Fourth, and Fifth Position categories.

The semantical element, common to these forms, is "get into a state, caused by the action". They often are best translated with a passive construction.

This category shows another feature by which it is sharply divided from the Unspecified Object, Masculine Object, Plural Object, Dura-tive, Infinitive, and Final Infinitive categories. The fact is that in this category also members are found which have no corresponding forms in the other categories, in other words: it has members which are outside the normal morphological system of the verb. The root-morphemes of such members are found to belong to a wordclass that will be discussed under Syntax and will be called the class of the Adjectives. This category opens, as it were, the possibility of making verbal forms from adjectives, e.g.

hénì búen - meager body,
no búendatú - I become meager,
hru iauá - a grown-up man,
no iauádakúm - she grew up.

In such cases the meaning is "get into the state (which is denoted by the lexical meaning)".

In § 46 we saw that Infinitives may have the function of adjectives. In other words, the Infinitive form is a means to make verbs into adjectives. As those members of the category in question which have corresponding forms in the verbal categories, enumerated above, always have the form of the Infinitive as the form of their root-morpheme, it may be said that the Infinitive is the connecting link between that category and the other categories. The other members which correspond with adjectives only make it clear that this has something to do with the adjectival function of the Infinitive.

For this reasons we call this category a Secondary verbal category and, as it is not the only one of this kind, we call it the First Secondary Verb Category.

There is one series of forms, belonging to this category, viz.

remédarú - I will change, become transformed (here),
 etc., etc.,

the root-morpheme of which (*remé-*) is not found otherwise.

Moreover, all forms of this category occur with zero root-morpheme:

darú or *rarú* - I will become (here),
 etc., etc.

The lexical meaning of this forms is "become".

49. The Second Secondary Verb Category.

Opposed to

bíerarú or *bíedarú* - I will be opened (here),

we find

bíererý or *bíederý* - I will be open(ed) (here).

Opposed to

batóratúm - it opens (intr.), it becomes wide,

we find

batóretým - it is open, is wide.

In the same way we find, corresponding with members of the First Secondary Verb category, forms different from them only in having Actors morphemes of the Apophonic series (and the form of other morphemes that goes with these Actor morphemes: *-de-* instead of *-da-*, *-re-* instead of *-ra-*, etc.).

The common semantical element in these words is "to be in a state caused by the action", or "to be in a state (denoted by the lexical meaning)".

All these forms constitute a productive category which counts among its members words without corresponding forms in the categories of Unspecified Object, Masculine Object, Plural Object, Durative, Infinitive, and Final Infinitive, but whose root-morphemes are found among the adjectives. All what is said in § 48 about the connection of the First Secondary Verb Category with the adjective and the Infinitive also applies to this category. Therefore, we call it the Second Secondary Verb Category.

In this category a series of forms is found with zero root-morpheme and having the meaning "to be":

derý or *rerý* - I will be (here),
etc., etc.

Needless to say that in the Second Secondary Verb Category no Iterative forms and no forms of the Sixth to Sixteenth Position categories are found.

50. The Third Secondary Verb Category.

Side by side with the Third Person Inanimate Plural forms of the Second Secondary Verb Category, described in the preceding §, other forms are found having the same meaning but formally characterized by an element *-ron-* in the forms of the First, Second, and Third Position categories and *-rom-* in those of the Fourth and Fifth Position categories, and the Actor morpheme *-ym* which has an accent in First Position forms, whereas in forms of the other Position categories there is an accent on the Position morpheme, e.g.

bierondým - they (inanimate) will be open (here),
triironkenyém - they (inanimate) are broken (are in pieces) below,
néiromsékym - they (inanimate) were torn there.

Forms for other Actors or Numbers are not found in this category which we call the Third Secondary Verb Category. In other respects the scope of its productivity is the same as that of the Second Secondary Verb Category to which the Third is only a competition series, that is to say, for the Third Person Inanimate Plural only.

III. THE BLOCKADING CATEGORIES AND WORDS OF THE VERB-SYSTEM

1. Introduction.

In respect to their relations with productive categories, the improductive ones fall into two groups: those which have the same categorial meaning as a productive category, and those whose categorial meaning is not found with any productive category. Members of improductive categories of the first kind prevent a speaker from using the corresponding forms of the productive category with the same categorial meaning or limit the use of such forms (in case of competition). Therefore, we call them *blockading* categories. The improductive categories of the second group do not limit the extension of the productive ones at all. They constitute, as it were, excrescences on the edge of the morphological system. We call them *additional* categories.

In the Nimboran verb-system a number of improductive categories of both kinds are found. The blockading categories will be discussed first, arranged under the headings of the categories which they blockade. After this the additional categories will pass under separate review.

2. Blockading categories of the Unspecified Object.

A. The category of the Apophonic series of Actor morphemes.

The members of this category have the same form as those of the productive series, except for having Actor morphemes of the Apophonic series and that form of the other morphemes that goes with such Actor

morphemes. In this category — like in all categories having Actor morphemes of the Apophonic series — there is no formal opposition between the Seventh and Eighth or between the Fourteenth and Sixteenth Position categories.

Members of this category are forms with the root-morphemes:

kin- - gaze (*kin-* also in Singular forms);

kyn- - stoop down (*kyn-* also in Singular forms);

tetý- - fall off (*tetý-* also in Singular forms); for this root-morpheme the Fifteenth Position category is blockaded by another category (see § 14);

ngyn- - fall (*ngyn-* also in Singular forms);

hri- - descend;

kan- - emaciate;

unghúo- and *ngúo-* - appear together;

yý- - rise together;

iapón- - bathe; with this root-morpheme only forms for the Plural and the First + Second and Second Person Dual, with plural meaning only, are found; for all the other forms there is suppletion of forms with root-morphemes *iá-* or *i-*;

kri- - flee (*kri-* also in Singular forms); with this root-morpheme only Singular and Dual forms are found; for the Plural there is substitution of forms with root-morpheme *kry-*;

reb- - drink; the Plural forms are blocked by the *-de-* category (see below under *J.*);

uú- - answer; with this root-morpheme only Momentary forms of this category are found, the Iterative being blocked by the *-men-* category (see under *B.*);

ka-; with this root-morpheme which never has an accent, only Third Person Neutral forms of the First Position category are found with the meaning "it is (was, will be)..." for statements of time, like seasons;

réi- - sleep; this root-morpheme has only Plural forms and First + Second and Second Person Dual forms, used only for plural actors; for the Singular and Dual forms there is suppletion of forms of the *-ta-* category with zero root-morpheme (see below under *K.*);

**-* - say to; with this root-morpheme only Singular and Dual forms of the Momentary are found, the Plural being supplied by forms with root-morpheme *i-*; *u-* never has an accent;

i- - say to; with this root-morpheme which never has an accent only Plural and Iterative forms are found; suppletion for the Singular and Dual forms of the Momentary is given by forms with root-morpheme *u-* (see above).

Further, forms of this category are found for the Sixth, Seventh, and Thirteenth Position categories, having zero root-morpheme, in the First Person Plural prefixed *i-* and in the Third Person Plural prefixed *ke-*. Their lexical meaning is "go". They correspond with analogically built forms with normal Actor morphemes like:

sáundu - I will go from there to here (I will come from there),
kebántam - they go from below to here (they come from below).

In the Sixth and Seventh Position categories there is an accent on the Position morpheme, except in the First + Second Person forms.

If immediately preceded by the Position morpheme, the Future morpheme is *-r-*, e.g.

béry - I will go from here to above.

Side by side with the forms of the Seventh Position category free variants occur having initial *h* instead of *s*, e.g.

séti or *héti* - you go from here to there.

B. The *-men̩-* category.

Members of this category are characterized by Actor morphemes of the Apophonic series and an element *-men̩-* immediately preceding the Position morpheme or, if this is zero, the Tense morpheme or Iterative morpheme. This *-men̩-* never has an accent so that the Actor morphemes of First Position forms all have an accent, e.g.

iámendý - I will ask (here),
tekúmentim - he meets (here),
pébm̩en̩keken̩yém - they two (non-masc.) call names below,
uúim̩enskékim - they answered there repeatedly.

The First + Second Person forms of this category have only one element *-men̩-* and so are the same as the corresponding forms of the category of the Apophonic series of Actor morphemes, e.g.

tekúmendim - you and I will meet (here).

The members of this category are forms with the following root-morphemes:

tekú- - meet;

ían- - ask; in Plural forms this root-morpheme takes the form *ianí-*,
e.g. *ianímendý* - we will ask (here);

peb- - call names; for this root-morpheme the First Position category is blocked by the *-ŋ-* category (see under C.);

uú- - answer; for this root-morpheme the Momentary is blocked by the category of the Apophonic series of Actor morphemes.

C. The *-ŋ-* category.

Members of this category are characterized by Actor morphemes of the Apophonic series and an element *-ŋ-* preceding the Position morpheme, or the Tense or Iterative morpheme respectively, e.g.

sándy - I will drive away (from here),

sáimbéry - we will drive away from above.

If a nasal precedes or follows immediately, the *-ŋ-* is fused with it and the result is a form identical with a member of the category of the Actor morphemes of the Apophonic series, e.g.

sámendim - you and I will drive away (from here),

sánéry - I drive (drove) away from far.

The members of this category are forms with the following root-morphemes:

sa- - drive away;

peb- - call names; only forms of the First Position category, the other Position categories being blocked by members of the *-men-* category (see under B.);

try- - pursue, but no Dual forms of the Momentary, as for these forms of the productive category of the Unspecified Object are used; e.g. *trýkebáru* - we two will pursue above;

tíi- - give to; in Singular forms this root-morpheme is *tíe-*.

With one root-morpheme some *-ŋ-* forms are found in which the

Actor morphemes are not of the Apophonic series: with the root-morpheme *hrii-* (copulate) the Singular forms of the Future of the First Position category of the Momentary are:

hriéndu - I will copulate (here),
hriéndi - you will copulate (here),
hriéndam - he will copulate (here),
hriéndum - she will copulate (here).

All other forms with this root-morpheme belong to the productive categories.

D. The *-pe-* category.

Members of this category are characterized by an element *-pe-* that always immediately follows the root-morpheme, except in Dual forms where it immediately follows the Dual morpheme *-ke-*.

The members of this category are forms with the root-morpheme *tóuŋ-* - rise to the surface, float to the surface, which is *tóin-* in Plural forms, e.g.

tóumpebáŋke - you came to the surface from below to here,
tóuŋkepebenanám - they two (masc.) rise to the surface from there
to above,
tóimpekátam - they come to the surface repeatedly (here).

E. The *-ra-* category.

The members of this category have the same form as those of the productive Masculine Object category but in use and meaning they are equal to the Unspecified Object category which they blockade, e.g.

krendiyárátum - it is entangled,
patíáirebáku - we held a pig-feast above.

The members of his category are:

forms with root-morpheme *krendiyá-* - become entangled;

forms with root-morpheme *patíá-* - hold a pig-feast;

forms with root-morpheme *téy-* - tremble;

forms with root-morpheme *sýe-* - swim;

forms with root-morpheme *ro-* - tell, inform;

Singular forms with root-morpheme *ki-* - go, proceed;

Dual forms with root-morpheme *kin-* - go, proceed;

forms with root-morpheme *kakrá-* - die; the Third Person Plural of the Future of the First Position category of the Momentary has the Tense morpheme *-d-*: *kakráirádam* - they will die (here);

forms with the root-morpheme *íi-* - divide, which is unchanged also in Singular forms, e.g. *íiráru* - I will divide (here); the Dual forms are in competition with members of the productive Unspecified Object category; for the First Person Plural no forms of the *-ra-* category are found with this root-morpheme so that for these the productive category is not blockaded;

Singular and Dual forms with root-morpheme *pun-* - come; these show the following deviations:

- 1° the *ŋ* of the root-morpheme is absent in the Singular forms, e.g. *púrebáku* - I came above, *púremanarám* - you and I will come below;
- 2° the Future forms of the First Position category, naturally except that of the First + Second Person Singular, are in competition with forms having Future morpheme *-d-*, e.g. *púráru* or *púrádu* - I will come (here);
- 3° the First + Second Person Dual and the Plural are not blocked; for these the normal forms of the productive Unspecified Object category are used;
- 4° *-ra-* forms of the Second Person Dual are used only for dual actors, whereas Second Person Dual forms of the productive category are used exclusively for plural actors, so that here a formal opposition exists between Second Person Dual and the Second Person Plural, e.g.

púnkráre - you two will come (here),

púnkedé - you (more than two) will come (here);

forms with root-morpheme *kri-* - build; the First Position forms are all in competition with forms of the productive category; in free variation with the Dual forms other forms are found having root-

morpheme *krie-*, e.g. *krikráru* or *kriekráru* - we two will build (here);

Iterative forms with root-morpheme *ty-* - hear, except for the First + Second Person Dual and the First Person Plural. For the Momentary there is suppletion of totally different forms (see under *K.*);

forms with zero root-morpheme; the Plural forms have a prefixed *i*; the Future morpheme is in the Singular forms of the First Position category *-d-*; there are three series of these:

1. forms of the Sixth to Sixteenth Position categories with lexical meaning "bring", e.g.

rebedú - I will bring from here to above,

irebekáŋku - we brought repeatedly from below to here;

2. forms of the First to Fifth Position categories with the lexical meaning "dream", e.g.

iráram - they will dream (here),

krenḡáku - we two dreamed repeatedly below;

3. Iterative forms of the First to Fifth Position categories with the lexical meaning "laugh"; these constitute the suppletion for a verb with root-morpheme *kiá-* with which no Iterative forms are found; e.g.

rekátu - I laugh repeatedly (here),

ireskáku - we laughed there repeatedly.

Special mention must be made of the members of this category with the root-morpheme *káo-* which remains unchanged also in Singular forms. The corresponding Iterative forms have *ko-* as their root-morpheme, e.g. *kórekátu* - I hide myself repeatedly (here).

Remarkable is that the lexical meaning of these forms is "hide oneself", whereas a series of members of the productive category is found with identical root-morpheme but having the meaning "hide" (transitive!). It is obvious that there is some connection between these two series. This makes the *-ra-* category in this case an additional category.¹⁴ Therefore, this case should have been discussed separately; this is not done here because of its limited scope.

¹⁴ In cases like this Bloomfield (Language, p. 224) speaks of "over-differentiation". His conclusion that "this implies homonymy in the regular paradigms" is not endorsed here. Cf. Nida's criticism on this point (Eugene A. Nida, The identification of morphemes, Language, XXIV (1948), p. 414—441, esp. footnote 31 on p. 429).

F. The *-ren-* category.

Members of this category are characterized by Actor morphemes of the Apophonic series and an element *-ren-* that has no accent and immediately follows the root-morpheme, except in Dual forms where it immediately follows the Dual morpheme which then has the form *-k-*.

The only members of this category are forms with the root-morpheme *íanten-* - show, teach, which in Plural forms has the form *íantéin-* with shifted accent, e.g.

- íantenrendý* - I will show (here),
- íantenkrembéy* - we two teach above,
- íantéinrenskéky* - we taught there repeatedly.

G. The *-de-* (*-re-*) category.

Members of this category are characterized by an element which in Singular and Plural forms is *-de-* and immediately follows the root-morpheme but in Dual forms is *-re-* and immediately follows the Dual morpheme which then is *-k-*. This element never has an accent so that an accent is found on the Actor morphemes of all Momentary forms of the First Position category, e.g.

- apíándedú* - I will fill up (here),
- kauáídietám* - they sort out (here),
- kyépkresántum* - they two (non-masc.) signal from there to here.

The members of this category are:

forms with the root-morphemes

- apíán-* - fill up;
- sennguám-* - chew;
- kyéb-* - signal;
- kauáe-* - sort out, select, which is *kauái-* in Plural forms;
- rekéi-* - turn, roll, which is unchanged also in Singular forms, e.g.
rekéidebáram - he will turn above;
- tekíe-* - move to and fro (trans.), which is unchanged also in Plural forms, e.g. *tekíediekú* - we moved to and fro (here);
- iyé-* - signal, which is *iyí-* in Plural forms;
- yé-* - signal, which is *yí-* in Plural forms;
- múo-* - make, which is unchanged also in Plural forms, e.g.
múodiekénáu - we make below;

uásin- - pass, which is unchanged in Singular, Dual and Plural forms;

ngesim- - roll up, which is unchanged also in Plural forms; the Dual forms are in competition with forms of the productive category and the Plural forms are in competition with members of the *-da-* category (see under *H.*);

Singular and Plural forms with the root-morphemes

iró- - fill;

dóun- - draw;

iakéy- - crumble, which is unchanged also in Plural forms, e.g.

iakéydietú - we crumble (here);

for these three root-morphemes the Dual is not blockaded so that there forms of the productive category are used;

Singular forms with the root-morpheme *kre-* - extinguish; Dual and Plural are not blockaded for this root-morpheme so that for these members of the productive category are found.

H. The -da- category.

Members of this category show similarity to those of the Plural Object category both in their form and in the absence of a formal opposition between Dual and Plural so that in this case, too, we can speak of a Non-Singular category. Another similarity is the absence of a special form of the root-morpheme for Singular forms.

The members of this category are:

forms with the root-morphemes

dekúo- - enter;

rekúí- - wheel round, turn round;

kym- - burn, be burned, which is unchanged also in Non-Singular forms, e.g. *kýmdiátam* - they burn (here);

forms of the Sixth, Eleventh, Thirteenth, Fourteenth, and Fifteenth Position categories with the root-morpheme *bekéi-* - rise, for which the First to Fifth Position categories are blockaded by other categories that will be discussed below;

Plural forms with the root-morphemes

tenéin- - peel ;

tebá- - fry, bake ;

dam- - eat, which is unchanged also in Plural forms ;

For these three root-morphemes the Singular and Dual are not blockaded so that for these members of the Productive category are used. To the Plural forms of the *-da-* category belongs also that of the Second Person so that there is an opposition between this and the Second Person Dual, e.g.

tebáketé - you two bake (here),

tebáidiáte - you (plur.) bake (here),

dámkekenáe - you two eat below,

dámdiekenáe - you (plur.) eat below.

To this group belong also forms with root-morpheme *kib-* - beat, for which, however, in the First Position category also the First Person Plural is not blockaded so that for this forms of the productive category are used, e.g.

kíptiu - we beat (here),

kibdiebáu - we beat above ;

Plural forms, except those of the First Position category, with root-morpheme *betýb-* - throw away. For this root-morpheme the Singular, Dual, and in the First Position category also the Plural are not blockaded ; the Second Person Non-Singular forms of the *-da-* category are used for plural actors only and are all found in competition with members of the productive category ;

Non-Singular forms with the root-morpheme *kri-* - close, shut, the First, Second, and Third Person especially used for plural actors ; Singular and Dual are not blockaded ; for the First and Third Person Plural of the First Position category *-da-* forms are found in competition with members of the productive category ;

Non-Singular forms with root-morpheme *re-* - put on (clothes), blockading only the Plural category ; the other categories are blocked by the *-ta-* category (see under *K.*).

J. The *-de-* category.

Members of this category are characterized in the same way as those of the *-da-* category but have, in addition, Actor morphemes of the Apophonic series so that the marking element always has the vowel *e*.

The members of this category are :

forms with the root-morpheme *bun̥*- - wait;

forms with the root-morpheme *ten̥gréin̥*- - go in front, lead the way;

First, Second, and Third Person Non-Singular forms with root-morpheme *reb*- - drink, especially used for plural actors; all other forms are blockaded by the category of the Actor morphemes of the Apophonic series (see under *A.*);

forms with the root-morpheme *teký*- - place against something.

In this series separate forms for the Dual are found in which the characterizing element has the form *-re-* and immediately follows the Dual morpheme which is *k*, e.g.

tekýdéry - I will place (here),
tekýkréry - we two will place (here),
tekýidiéry - we will place (here).

K. The *-ta-* category.

Members of this category are characterized in the same way as those of the *-da-* category (see under *H.*), except for the consonant of the morpheme which is *t*.

The members of this category are:

forms with the root-morphemes

do- - give (many objects);
kon̥- - have a nightmare;
déin̥- - stretch oneself;
pemprián̥- - sprawl;
ra- - roast (many objects);
kryá- - defecate;
tekím- - move, which is unchanged also in Non-Singular forms;
ngryéb- - cast the skin;
bun̥- - cast the skin;
pra- - cross; the Singular forms of the Future of the First Position category of the Momentary with this root-morpheme have *d* as their tense morpheme, e.g. *prátádu* - I will cross (here);

forms of the Sixth to Sixteenth Position categories with root-morpheme *ken̥*- - follow; for this root-morpheme the First to Fifth Position categories are blockaded by the *-ten̥*- category (see under *O.*);

Singular forms and Non-Singular forms — the latter only used for dual actors — with the root-morpheme *re-* - put on, for which the Plural is blocked by the *-da-* category (see under *H.*);

forms of the First to Fifth Position categories with zero root-morpheme and in the Non-Singular forms with prefixed *i*, having the lexical meaning “make cat’s-cradles”;

Momentary forms with zero root-morpheme and in the Non-Singular forms prefixed *i* with the meaning “hear”; the Iterative is supplied by members of the *-ra-* and the *-re-* categories with root-morpheme *ty-* (see under *E.* and *Y.*);

forms of the Sixth to Sixteenth Position categories with zero root-morpheme, having the lexical meaning “stretch out, extend (over a distance)”;

Singular forms and Non-Singular forms, used only for dual actors, with zero root-morpheme and the Non-Singular forms with prefixed *i* with the lexical meaning “sleep”; the First Position category forms all have an accent on the Actor morpheme and the Future forms of the First Position category have *d* as their Tense morpheme, e.g. *tedú* - I will sleep (here). For the Plural there is suppletion of forms of the category of Actor morphemes of the Apophonic series with root-morpheme *réi-* (see under *A.*);

Singular forms of the Iterative with root-morpheme *prin-* - fly; all other forms are blocked by the *-te-* category for this root-morpheme (see under *L.*).

L. The *-te-* category.

Members of this category have the same form as those of the *-ta-* category but have Actor morphemes of the Apophonic series. Consequently, the vowel of the characterizing element is always *e*.

The members of this category are:

forms with the root-morphemes

teyí- - jump;

uéñ- - swing (on a swing), which in Non-Singular forms is *uíñ-*;

prin- - be frightened, which is *prin-* also in Non-Singular forms;

prin- - fly, which is unchanged also in Non-Singular forms; Future forms of the First Position category all have an accent on the

Actor morpheme, e.g. *printerý* - I will fly (here); the Singular of the Iterative is blocked for *prin-* by the *-ta-* category (see under *K.*);

nin- - stand, stand up, which is unchanged also in Non-Singular forms; for the Third Person Plural of the Future of the First Position category a form with *d* as its Tense morpheme is found as free variant, so *níntiédim* or *níntiérím* - they will stand (here); *bekie-* - run, which is *bekie-* also in Non-Singular forms; the Future forms of the First Position category are in competition with forms having Tense morpheme *d* and an accent on the Actor morpheme, e.g. *bekietedý* or *bekiétéry* - I will run (here);

Non-Singular forms with root-morpheme *krýi-* - flee; in the First Position forms there is an accent on the Actor morphemes and the Future morpheme is *d*; these forms are only used for plural actors and form the suppletion to forms with root-morpheme *kri-* (see under *A.*);

Non-Singular forms with zero root-morphemes and the lexical meaning "kiss"; in First Position forms there is always an accent on the Actor morpheme and the Future morpheme is *-d-*; the Singular is blocked by the *-tem-* category (see under *W.*);

Third Person Neutral Singular forms of the Momentary forms with zero root-morpheme and the lexical meaning "be (present)"; in the First Position category there is always an accent on the Actor morpheme and the Future Morpheme is *-d-*; these forms are in competition with the corresponding forms of the Second Secondary Verb Category (see Ch. II, § 49).

M. The *-den-* category.

Members of this category have the formal characteristics of both the *-de-* category and the *-ŋ-* category (see under *J.* and *C.*), e.g.

bekéidenséry - I will rise there,
dóbdíenty - we smell (here).

The members of this category are:

forms with the root-morphemes *isú-* and *isiú-*, both having the lexical meaning "shake" and both unchanged also in Non-Singular forms;

forms of the First to Fifth Position categories with the root-morpheme *bekéi-* - rise, for which the other Position categories are blockaded by the *-da-* category (see under *H.*);

First Position forms with root-morpheme *dob-* - smell; the other Position categories are blockaded by the *-demen-* category (see under *R.*).

N. The -den- (-ren-) category.

Members of this category have the characteristics of both the *-de-* (*-re-*) category (see under *G.*) and the *-ŋ-* category (see under *C.*) combined.

The members of this category are:

Momentary forms with the root-morphemes *nengý-* and *rengý-*, both having the lexical meaning "show, indicate"; for these two root-morphemes the Iterative is blockaded by the *-dem-(-rem-)* category (see under *U.*);

First Position forms with root-morphemes *iabý-* - gather (together); for this root-morpheme the other Position categories are blockaded by the *-dem-(-rem-)* category (see under *U.*).

E.g.

nengýedendý - I will show (here),

rengýkrenkenéi - you (non-sing.) show below.

O. The -ten- category.

In the form of the members of this category the characteristics of the *-te-* category (see under *L.*) and the *-ŋ-* category (see under *C.*) are combined.

The members of this category are:

forms with the root-morpheme *brásin-* - find, which is unchanged also in Non-Singular forms;

forms of the First to Fifth Position categories with root-morpheme *ken-* - follow; for this root-morpheme the other Position categories are blockaded by the *-ta-* category (see under *K.*).

P. The *-nen-* category.

The formal characteristics of this category are the same as those of the *-ten-* category (see under *O.*) except for the first consonant of its morpheme which is *n* instead of *t*.

Members of this category are Momentary forms of the First Position category with the root-morpheme *pon-* - see, which is *pon-* also in Non-Singular forms, e.g.

pónéndy - I will see (here),

póniényky - we (two) saw (here).

For this root-morpheme the other Position categories of the Momentary are blockaded by the *-nem-* category (see under *X.*) and the Iterative by the *-nemen-* category (see under *S.*).

Q. The *-demen-* (*-remen-*) category.

In the form of the members of this category the characteristics of the *-de-* (*-re-*) category (see under *G.*) and those of the *-men-* category (see under *B.*) are combined.

The only members of this category are forms with the root-morpheme *skín-* - choke, which is *skín-* also in Plural forms, e.g.

skíndemendý - I will choke (here),

skínkrementím - they two (masc.) choke (here),

skíndiemenékím - they choked below.

R. The *-demen-* category.

In this category the formal characteristics of the *-de-* category (see under *J.*) and of the *-men-* category (see under *B.*) are combined.

The members of this category are:

forms of the Second to Fifth Position categories with the root-morpheme *dob-* - smell, for which the First Position category is blockaded by the *-den-* category (see under *M.*);

Iterative forms with the root-morpheme *skry-* - shake, for which the Momentary category is blockaded by the *-dem-* category (see under *V.*).

E.g.

dóbbdiembéy - we (two) smell above,

skrýdemenkétím - he shakes repeatedly (here).

S. The *-nemen-* category.

Members of this category show the same formal characteristics as those of the *-demen-* category (see under *R.*) except for the morpheme having *n* instead of *d*.

The members of this category are Iterative forms with the root-morpheme *pon-* - see, which is unchanged also in Non-Singular forms, e.g.

pónemenkétý - I see repeatedly (here),

póniemenskéký - we (we two) saw repeatedly there.

For this root-morpheme the Momentary is blocked by the *-nen-* category and the *-nem-* category (see under *P.* and *X.*).

T. The *-rem-* category.

Members of this category are characterized by Actor morphemes of the Apophonic series and by an element *-rem-* immediately following the root-morpheme, except in Dual forms where it immediately follows the Dual morpheme which then has the form *-k-*. If immediately followed by the morpheme of the Third, Fifth, or Ninth Position category, the form of the characterizing element is *-reme-*. In forms of the First Position category, except those of the First + Second Person, *-rem-* has an accent.

The members of this category are :

forms with the root-morphemes

yá- - seek,

tran- - call, which is *tran-* also in Plural forms,

kin- - order; this root-morpheme is unchanged in Plural forms; in the Singular stem the *n* may be dropped, so that it is *kíe-* or *kien-*;

Plural forms with root-morpheme *re-* - go, proceed; the Singular forms are supplied by root-morpheme *ki-* and the Dual by forms with root-morpheme *kin-*, all of the *-ra-* category (see under *E.*).

Some examples :

kierémty or *kienrémtý* - I order (here),

yákrementéri - you (two) will seek below,

tránremenékím - he (they) called far away.

U. The *-dem-* (*-rem-*) category.

Members of this category have the same form as those of the *-de-* (*-re-*) category with an *m* added to the characterizing element which in the Third, Fifth, and Ninth Position categories shows the same variation as *-rem-* of the preceding category (see under *T.*).

The members of this category are:

forms with the root-morphemes

uauý- - take along, which is unchanged also in Singular forms;

rekü- - cheat, which is *rekí-* in Singular forms;

iabý- - gather (together), but not the forms of the First Position category, as this is blockaded by the *-den-* (*-ren-*) category (see under *N.*);

Iterative forms with the root-morphemes *rengý-* and *nengý-*, both with the lexical meaning "show"; for these root-morphemes the Momentary is blockaded by the *-den-* (*-ren-*) category (see under *N.*).

V. The *-dem-* category.

Members of this category have the same form as those of the *-de-* category (see under *J.*), except for the characterizing element being *-dem-* and showing a variation analogous to that of *-rem-* in the Third, Fifth, and Ninth Position categories (see under *T.*).

The members of this category are:

forms with the root morpheme *ngéin-* - forget, and

Iterative forms with the root-morpheme *skry-* - shake, for which the Momentary is blockaded by the *-demen-* category (see under *R.*).

Examples:

ngéindemenéký - I forgot below,

skrýidiémdi - you (two) will shake (here).

W. The *-tem-* category.

The members of this category show the same forms as those of the *-dem-* category, except for the characterizing element having *t* instead of *d*.

The members of this category are:

forms with the root-morpheme *muá-* - cock one's eye;

forms with the root-morpheme *ngry-* - know carnally;
Singular forms with zero root-morpheme and having the lexical meaning "kiss", e.g. *temtým* - she kisses (here). The Non-Singular is blockaded by the *-te-* category (see under *L.*).

X. The *-nem-* category.

Members of this category have the same forms as those of the *-dem-* category (see under *V.*) except for the characterizing element having *n* instead of *d*.

The members of this category are only Momentary forms (but not those of the First Position category) with the root-morpheme *pon-* - see, which is unchanged also in Non-Singular forms, e.g.

pónemséy - I see there,
póniemkeném - they see below.

For this root-morpheme the First Position category of the Momentary is blockaded by the *-nen-* category (see under *P.*) and the Iterative by the *-nemen-* category (see under *S.*).

Y. The *-re-* category.

Members of this category have the same characteristics as those of the *-ra-* category but, in addition, have Actor morphemes of the Apophonic series. The only members of this category are Iterative forms with root-morpheme *ty-* - hear, but only for the First + Second Person Dual and the First Person Plural. The other Persons of the Iterative are blockaded by the *-ra-* category (see under *E.*), while for the Momentary there is suppletion of forms with zero root-morpheme of the *-ta-* category (see under *K.*).

3. Blockading categories of the Masculine Object.

A. The *-man-* category.

Members of this category are characterized by an element *-man-* immediately preceding the Position morpheme, except in First Position forms, as in the Momentary forms of the First Position category it precedes the Tense morpheme (and has an accent!) and in the Iterative forms of the First Position category immediately precedes the Iterative

morpheme. This element *-manɣ-* and the *-manɣ-* of the First + Second Person Singular result in only one *-manɣ-*.

Examples of members of this category are:

sámansáru - I will drive him from there,
dɣɲkemankátum - they two (non-masc.) remember him repeatedly,
tebáimánkam - they gave him a wife.

The members of this category are forms with the root-morphemes:

sa- - drive away;
peb- - call names;
try- - pursue;
práo - observe, which is *proá-* in Singular forms;
kinɣ- - crush, which is *kiénɣ-* in Singular forms;
kinɣ- - tie up, which is *kiénɣ-* in Singular forms;
tebá- - give a wife, arrange the marriage for;
skab- - pinch;
dɣɲ- - remember;
téi- - give (one object) to, which is *tíe-* in Singular forms.

B. The *-menɣ-* category.

Members of this category show the same forms as those of the *-manɣ-* category except for their Actor morphemes which are of the Apophonic series. Consequently, the vowel of the characterizing element is *e*.

The members of this category are:

forms with the root-morphemes

uú- - answer;
íanɣ- - ask;
tekú- - meet;

Momentary forms with the root-morpheme *u-* that never has an accent and for which Plural forms have *i-*, also without accent, having the lexical meaning "tell, say to".

Examples:

tekúméndy - I will meet him (here),
íanɣkemembéi - you two ask him above,
uúiménékim - they answered him below.

C. The *-remaŋ-* category.

The members of this category have the same forms as those of the *-maŋ-* category (see under *A.*) but, in addition, have *-re-* preceding the element *-maŋ-*. Before this *-remaŋ-* the Dual morpheme is *-k-*.

The members of this category are forms with the root-morphemes:

kiŋ- - order,

ro- - tell,

traŋ- - call,

yá- - seek,

iánten- - show, in which the *ŋ* is usually dropped in Singular and Plural forms,

puŋ- - marry (said of woman), the *ŋ* of which is usually dropped in Singular and Plural forms,

and forms with zero root-morphemes having the lexical meaning "dream (of)". The Plural forms of this last series have an *i* prefixed.

Some examples:

tráŋkremansákam - they two (masc.) called him there,

yáiremambáru - we will look for him above,

kieremáŋku - I ordered him (here),

púremándam - she will marry him (here),

remántum - she dreams of him (here),

iremansáku - we dreamed of him there.

D. The *-demaŋ* (*-remaŋ-*) category.

Members of this category show the same forms as those of the *-remaŋ-* category; the only difference is found in the Singular and Plural forms where the characterizing element has *d* instead of *r*.

The members of this category are forms with the root-morphemes:

neŋgý- - show,

reŋgý- - show,

skiŋ- - choke,

uauý- - take along,

rekü- - cheat,

ŋgéiŋ- - forget.

Some examples :

rekídemántam - he cheats him (here),
uauýkremansenáru - we two will take him along from below to there,
skindiemanákam - they strangled him far away.

E. The -temaŋ- category.

Members of this category are formally characterized by an element *-temaŋ-* immediately following the root-morpheme. In this category there is no opposition between Dual and Plural but there is one Non-Singular category, characterized by an *i* immediately after the *t* of *-temaŋ-* (and, if possible, an *i* after the last vowel of the root-morpheme). In the Singular forms no special Singular stem of the root-morpheme is found.

The members of this category are :

forms with the root-morphemes

kuá- - embrace,
keŋ- - follow,
brásiŋ- - find,
do- - give (many objects) to ;

forms with zero root-morpheme and with the lexical meaning "hear";
 the Plural forms have prefixed *i* ;

Iterative forms with the root-morphemes

króu- - bury,
krakóu- - cover,
kakróu- - cover,
prib- - throw,
kib- - beat ;

for these root-morphemes the Momentary is not blockaded so that for this category the forms of the Productive Masculine Object category are used.

Examples :

kuátemaŋkum - she embraced him (here),
kéintiemeŋkenéry - we will follow him from there (above, below)
 to far away,
kíptiemaŋgátam or *kútiemaŋgátam* - they beat him repeatedly below,

temándu - I will hear him (here),
itiemambám - we hear him above,
temanskákum - she heard him there repeatedly.

The members of this category with the root-morpheme *téi-*, in Singular forms *tíe-*, deserve especial mention. They have the lexical meaning "give two objects to". There is some correspondence between these forms and those with identical root-morpheme belonging to the *-manɿ-* category (see under *A.*) and having the lexical meaning "give one object to". In fact these *-temanɿ-* forms constitute an Additional category and should be discussed separately. Because no parallel cases are found, they are treated here together with the other *-temanɿ-* forms.

F. The *-nemanɿ-* category.

The forms of the members of this category are the same as those of the *-temanɿ-* category, except for the characterizing element having *n* instead of *t*.

The only members of this category are forms with the root-morpheme *ponɿ-* - see, e.g.

pónemántu - I see him (here),
póniemansáke - you (non-sing.) saw him there.

G. The *-demanɿ-* category.

Formally, the members of this category resemble those of the *-temanɿ-* category (see under *E.*) but they have Actor morphemes of the Apophonic series and the characterizing element has *d* instead of *t*.

The only members of this category are forms with the root-morpheme *bunɿ-* - wait for; e.g.

búndeméndy - I will wait for him (here),
búndiemensékim - they waited for him there.

H. The *-dem-* (*-rem-*) category.

Members of this category show the same forms as those of the *-demanɿ-* (*-remánɿ-*) category (see under *D.*) except for their characterizing element being *-dem-*, in Dual forms *-rem-*.

The members of this category are forms with the root-morphemes:

yé- - signal,
iyé- - signal,
kyébb- - signal.

Some examples :

yédembedú - I will signal to him from here to above,
iyékremsetú - we two signal to him from here to there,
kyéidiembánkam - they signalled to him from below to here.

4. Blockading categories of the Plural Object.

A. The category of the shifted accent.

Members of this category have the same form as those of the productive Plural Object category except for having always an accent on the Actor morpheme. The Plural Object morpheme is always *-de-*. In the First Position category the Future morpheme is *-d-*.

The only members of this category are Momentary forms of the First Position category with the root-morpheme *iabý-* collect, gather; e.g.

iabýdedú - I will gather them (here),
iabýdiedé - you (non-sing.) will gather them (here).

For this root-morpheme the other Position categories and the Iterative of the First Position category are not blockaded so that for these members of the productive category are used.

B. The *-ta-* category.

The members of this category are the same in form as those of the productive category except for the consonant of the morpheme which is *t* instead of *d*.

To this category belong

forms with the root-morpheme *brásin-* - find;

forms with the root-morpheme *prib-* - throw, all in competition with members of the productive Plural Object category;

forms with the root-morpheme *ken-* - follow, except those of the Sixth to Ninth Position categories, because these are blockaded by the *-teim-* category (see under *D.*);

Non-Singular forms with root-morpheme *dóu-* - follow, for which the Singular is not blockaded;

Non-Singular forms with the root-morpheme *kon-* - set, put, all in competition with members of the productive Plural Object category; for this root-morpheme the Singular is not blockaded.

Some examples:

brásintáku - I found them (here),
kéintiebánte - you (non-sing.) follow them from below to here,
kóindiebáru or *kóintiebáru* - we will put them above.

C. The category of the Actor morphemes of the Apophonic series.

Members of this category have the same forms as those of the productive Plural Object category but their Actor morphemes are of the Apophonic series. Consequently, the characterizing element always has the vowel *e*.

The members of this category are forms with the root-morpheme *reb-* - drink, e.g.

rébdéry - I will drink them (here),
rébdiesékim - they drank them there.

D. The *-teim-* category.

The forms of this category run closely parallel to those of the productive Plural Object category but their characterizing element is not *-da-* but *-teim-* and they all have Actor morphemes of the Apophonic series.

The only members of this category are forms of the Sixth to Ninth Position categories with the root-morpheme *ken-* - follow, for which the other Position categories are blockaded by the *-ta-* category (see under *B.*); e.g.

kénteimbedý - I will follow them from here to above,
kéintieimsetí - you (non-sing.) follow them from here to below
 (or to there).

E. The *-den-* category.

Members of this category show the same forms as those of the *-teim-* category, except for the element characterizing them which is *-den-*. The *i* which characterizes the Non-Singular forms has its place

immediately after the *d* of this *-den-* but not in forms of the Fourth and Fifth Position categories, because there it immediately follows the first consonant of the Position morpheme, whereas in Future and Present forms of the First Position category this *i* immediately follows the Tense morpheme.

Members of this category are only forms with the root-morpheme *bun-* - wait for, e.g.

búndéndy - I will wait for them (here),

búindéntiy - we wait for them (here),

búindiénky - we waited for them (here),

búindensiérím - they will wait for them there.

F. The *-diem-* category.

Members of this category have the same forms as those of the *-teim-* category (see under *D.*) but their characterizing element is *-diem-* which has the form *-dieme-* if it is immediately followed by the morpheme of the Third, Fifth, or Ninth Position category.

The members of this category are forms with the root-morpheme *uauy-* - take along, and Plural forms with the root-morpheme *dyn-* - remember, for which the Dual and Singular categories are blockaded by the *-rin-* category (see under *K.*). In the Momentary forms of the First Position category with root-morpheme *dyn-* the *e* of the element *-diem-* has an accent, e.g.

dýindiémny - we will remember them (here).

But in the Momentary forms of the First Position category with root-morpheme *uauy-* there is an accent on the Actor morpheme, e.g.

uauýidiemký - we took them along from here.

The Non-Singular forms of Future and Present of the First Position category of the Momentary with the root-morpheme *uauy-* have an *i* immediately following the Tense morpheme, e.g.

uauýidiemdiý - we will take them along from here,

uauýidiemtiím - they take them along from here.

G. The *-nien-* category.

The members of this category show the same forms as those of the

preceding one, except for their characterizing element being *-niɛŋ-* instead of *-diem-*.

The members of this category are Momentary forms of the First Position category with the root-morpheme *poŋ-* - see. They have an accent on the *e* of *-niɛŋ-* and the Non-Singular forms have *i* immediately following the Tense morpheme; e.g.

póniɛŋky - I saw them (here),
póniɛndiy - we will see them (here).

For this root-morpheme the other Position categories are blockaded by the *-niem-* category (see under *H.*).

H. The -niem- category.

Members of this category have precisely the same forms as those of the *-diem-* category (see under *F.*), except for the first consonant of the characterizing element being *n* instead of *d*. There happens to be no difference between Singular and Non-Singular forms of this category.

Members of this category are forms with the root-morpheme *poŋ-* - see, not including those of the Momentary of the First Position category which are blockaded by the *-niɛŋ-* category (see under *G.*).

Examples :

póniemenéry - I (we) will see them below,
póniemsékim - he (they) saw them there.

J. The -reŋ- category.

Members of this category are formally identical with those of the *-reŋ-* category of the Unspecified Object (see § 2 under *F.*). Here we find separate categories of Dual and Plural. This is in striking contrast with the situation found in the Plural Object categories discussed so far in this § and in the productive Plural Object category. In the Momentary forms of the First Position category the element *-reŋ-* has an accent and the Plural forms of Future and Present may have an *i* immediately preceding the Actor morpheme.

The members of this category are :

Momentary forms with the root-morphemes

kiŋ- - order,

tran̄- - call,
yá- - seek;

for these root-morphemes the Iterative is blockaded by the *-rin̄-* category (see under *K.*);

forms with the root-morpheme *iánten̄-* - show, which are all in competition with members of the *-rin̄-* category (see under *K.*);

forms with zero root-morpheme, having the lexical meaning "dream (of)"; the Plural forms have a prefixed *i*.

Examples:

kieréndy - I will order them (here),
trán̄krembéki - you (plur., du.) called them above,
iréntiy - we dream of them (here).

K. The -rin̄- category.

In form, the members of this category are the same as those of the *-ren̄-* category (see under *J.*) except for the vowel of the characterizing element being *i* instead of *e*.

The members of this category are:

forms with the root-morpheme *sa-* - drive away;

forms with the root-morpheme *tapó-* - help;

Singular and Dual forms with the root-morpheme *dyn̄-* - remember;
 for this root-morpheme the Plural is blockaded by the *-diem-* category (see under *F.*);

Iterative forms with the root-morphemes

kin̄- - order,
tran̄- - call,
yá- - seek;

for these three root-morphemes the Momentary is blockaded by the *-ren̄-* category (see under *J.*);

Iterative forms with the root-morpheme *ro-* - tell; for this root-morpheme the Momentary is blockaded by the *-rein̄-* category (see under *O.*) and the *-rim-* category (see under *P.*);

forms with the root-morpheme *iánten-* - show, all in competition with members of the *-ren-* category (see under *J.*);

Dual forms with the root-morphemes *ián-* - ask, and *tekú-* - meet; for these root-morphemes the Singular and Plural are blockaded by the *-n-* category (see under *N.*);

forms with the root-morphemes *try-* - pursue, and *téi-* - give (*tíe-* in Singular forms); these two series of forms show two peculiar features:

1. Momentary forms of Present and Future in the First Position category have an additional *i* immediately preceding the Actor morpheme;
2. all Plural forms have a *k* immediately preceding the element *-rin-*;

forms with the root-morpheme *peb-* - call names; these forms show the same peculiarities as mentioned for the forms with *try-* and *téi-* but, in addition, have in the Iterative an extra element *-men-* immediately following *-rin-*.

Examples:

sáirindiy - we will drive them away (from here),
tapókrimbéky - we two helped them above,
péikrimenskétim - they abuse them repeatedly there.

L. The -din- category.

Members of this category have the same forms as those of the *-rin-* category (see under *K.*) except in the Singular and Plural, where the characterizing element has *d* instead of *r*. The Momentary forms of the First Position category have an accent on the Actor morpheme and those of Future and Present have an additional *i* immediately preceding the Actor morpheme.

The only members of this category are forms with the root-morpheme *rekü-* - cheat, e.g.

rekidindii - you (sing.) will cheat them (here),
rekükrinséry - we two will cheat them there,
reküdiinký - we cheated them (here).

M. The *-dim-* category.

The members of this category show the same forms as those of the *-din̩-* category (see under *L.*) except for the characterizing element having *m* instead of *ɲ*. If immediately preceding the morpheme of the Third, Fifth, or Ninth Position category, the form of the characterizing element is *-dime-* in Singular and Plural forms or *-rime-* in Dual forms.

The members of this category are forms with the root-morphemes *iyé-*, *yé-*, and *kyéb-*, all having the lexical meaning "signal", e.g.

yédimbedí - you will signal them from here to above,

iyékrimeneký - we two signalled them from here to far away,

kyéidiimskénty - we signal them repeatedly from there to here.

N. The *-ɲ-* category.

Members of this category show the following formal characteristics:

1. all Actor morphemes are of the Apophonic series;
2. First + Second Person Singular forms have an element *-ke-* immediately following the root-morpheme;
3. except for the First + Second Person forms, there is no formal difference for the number of the Actor;
4. all forms are characterized by an element *-ɲ-* which in Momentary forms of the First Position category immediately precedes the Tense morpheme, in Iterative forms of the First Position category immediately precedes the Iterative morpheme, and in all other Position categories immediately precedes the Position morpheme;
5. all forms, except those of the First + Second Person Singular, have an *i* immediately following the last vowel of the root-morpheme, except with those root-morphemes which have a Plural stem without *i*;
6. all forms have an *i* immediately preceding the first vowel following either the root-morpheme or, in First + Second Person Singular forms, *-ke-*, if that vowel is preceded by *d*, *t*, *n*, or *s*.

The members of this category are:

forms with the root-morpheme *uú-* - answer;

forms with zero root-morpheme and with the lexical meaning "say to";

Singular and Plural forms with the root-morphemes *ían̩-* - ask, and *tekú-* - meet; for these two root-morphemes the Dual is blockaded by the *-rin̩-* category (see under *K.*).

Some examples:

*uúindi*y - I (we) will answer them (here),
iaŋisiéki - you asked them there, . . .
tekúkentüim - you and I meet them (here),
indiy - I (we) will say to them (here),
kementim - you and I say to them (here).

O. The *-reĩŋ-* category.

Formally, the members of this category are identical with those of the *-reŋ-* category (see under *J.*) except for the characterizing element being *-reĩŋ-* instead of *-reŋ-*.

The only members of this category are Momentary forms of the First Position category with the root-morpheme *ro-* - tell, e.g.

*róréindi*y - I will tell them (here),
rókreĩntiy - we two tell them (here),
róiréĩnkim - they told them (here).

For this root-morpheme the Iterative is blockaded by the *-riŋ-* category (see under *K.*) and the other Position categories of the Momentary by the *-rim-* category (see under *P.*).

P. The *-rim-* category.

The forms of the members of this category are the same as those of the *-riŋ-* category (see under *K.*) except for the characterizing element having *m* instead of *ŋ* and being *-rime-*, if immediately followed by the Position morpheme of the Third and Fifth Position categories.¹⁵

The members of this category are Momentary forms, but not those of the First Position category, with the root-morpheme *ro-* - tell. For this root-morpheme the First Position category of the Momentary is blockaded by the *-reĩŋ-* category (see under *O.*) and the Iterative by the *-riŋ-* category (see under *K.*).

Q. The *-tiem-* category.

Members of this category are characterized by an element *-tiem-*;

¹⁵ Theoretically, the Ninth Position category, too, should be mentioned here. But its categoric meaning is not compatible with the lexical meaning of the forms with the root-morpheme *ro-*, the only members of this category. Therefore, such Ninth Position forms are not found in actual practice.

for the rest their forms are the same as those of the *-teim-* category (see under *D.*). No *i* is added to the Non-Singular forms and, as the only members of this category are Momentary forms with the accentless root-morpheme *i-* - hear, which has the same form both in Singular and Non-Singular forms, there is no formal difference for the number of the Actor; e.g.

itiemséry - we (I) will hear them there,
itiemenéki - you heard them below.

5. Blockading categories of the Singular.

The blockading categories of the Singular consist of forms of Singular stems, deviating from the pattern described in Chapter II, § 35. They are discussed here, only in so far as their members belong to the productive categories of Unspecified Object, etc.; all the other cases are mentioned in §§ 2 to 4 of this chapter.

A. The category of the shifted accent.

The members of this category are different from those of the productive category in the place of the accent of the Singular stem, as this accent is on the vowel following that of the root-morpheme. This is the case with the following Singular stems:

kién-, root-morpheme *kin-* - pack, wrap up;
kién-, root-morpheme *kin-* - regret;
kién-, root-morpheme *kin-* - bind, tie up;
kién-, root-morpheme *kin-* - crush;
hrié-, root-morpheme *hrii-* - cohabitare;
temyéñ-, root-morpheme *temýñ-* - stab.

Examples:

kiéntu - I pack (here), (etc.),
temyéñke - you (sing.) stabbed (here).

B. The *-uñ-*, *-úeñ-* category.

The members of this category have a Singular stem ending in *-úeñ-*, corresponding with a root-morpheme ending in *-uñ-*. These members are forms with the Singular stem *búeñ-*, corresponding with the root-

morpheme *bun-* - pick off, and forms with the Singular stem *hrúen-*, corresponding with the root-morpheme *hrun-* - break.

Examples:

búenáru - I will pick off below,
hrúente - you (sing.) break (here).

C. The *-áo-*, *-a-* category.

The members of this category have a Singular stem ending in *-a-*, corresponding with a root-morpheme ending in *-áo-*. The members of this category are forms with the Singular stem *ingá-*, corresponding with the root-morpheme *ingáo-* - wash, and forms with the Singular stem *teká-*, corresponding with the root-morpheme *tekáo-* - draw (water from a well, etc.).

Examples:

ingádu - I will wash (here),
tekáke - you drew (water) (here).

D. The *-áo-*, *-oá-* category.

The members of this category have a Singular stem ending in *-oá-*, whereas the corresponding root-morpheme ends in *-áo-*. These members are forms with the Singular stem *kroá-* (root-morpheme *kráo-* - demolish) and forms with the Singular stem *proá-* (root-morpheme *práo-* - observe), e.g.

kroábáram - he will demolish above,
proásóm - she observes there.

E. The *-o-*, *-úe-* category.

The members of this category have a Singular stem ending in *-úe-*, whereas the corresponding root-morpheme ends in *-ó-*. These members are forms with the Singular stem *rúe-*, corresponding with root-morpheme *ro-* - wash, e.g.

rúedu - I will wash (here),
rúekenám - he washes below.

F. The -óu-, -oá- category.

Members of this category have a Singular stem ending in -oá-, corresponding with a root-morpheme ending in -óu-. These members are forms with the Singular stem *noá-* (root-morpheme *nóu-* - break up) and forms with the Singular stem *droá-* (root-morpheme *dróu-* - bath). The latter are in competition with forms of the -óu-, -ó- category (see under G.).

Examples:

noáku - I broke up (here),
droáresáru - I will bath him there.

G. The -óu-, -ó- category.

Members of this category have a Singular stem ending in -ó-, whereas the corresponding root-morpheme ends in -óu-. These members are forms with the Singular stem *uó-* (root-morpheme *uóu-* - spit out) and forms with the Singular stem *dro-* (root-morpheme *dróu-* - bath). The latter forms are in competition with members of the -óu-, -oá- category (see under F.).

Examples:

uókam - he spit out (here),
droáresóm - or *dróresóm* - she bathes him there.

H. The identity category.

The members of this category have a singular stem, ending in -yéiŋ- which is identical with the root-morpheme. These members are forms with the Singular stems (root-morphemes) *syéiŋ-* - cut loose, and *ŋgyéiŋ-* - shake, e.g.

syéimbáru - I will cut loose above,
ŋgyéiŋkam - he shook (here).

6. The Dual category of the prefixed k.

The members of the only blockading category of the Dual are characterized by having a *k* prefixed to the root-morpheme instead of -ke- following it. This category we call the category of the prefixed *k*.

The members of this category are:

Unspecified Object forms of the First Position category with the root-morpheme *iá-* - bathe; the First + Second Person is not included and the Second Person forms are used for dual Actors only: e.g. *iádu* - I will bathe (here), but *kiádu* - we two will bathe (here);

Unspecified Object forms of the Second, Third, Fourth, and Fifth Position category, except for the First + Second Person, with the root-morpheme *i-* - bathe, which has no accent, e.g. *kibáke* - you two bathed above (cf. *ibáke* - you (sing.) bathed above); the Second Person forms are used only for dual Actors;

Unspecified Object forms with the root-morpheme which elsewhere is *u-* without an accent but in Dual forms is represented by *o-* and has an accent, but only in the Momentary forms of the First Position category; the lexical meaning is "say"; all these forms are in competition with members of the productive category, e.g.

kódy or *ukedý* - we two will say (here),

koberim or *ukeberim* - they two (masc.) will say above.

7. Blockading categories of the Plural.

The blockading categories of the Plural are all characterized by the form of the Plural stem of the root-morpheme, deviating from the pattern described in Chapter II, § 37. They are discussed here only in so far as their members belong to the productive categories of Unspecified Object, etc.; the others are mentioned in the §§ 2 to 4 of this chapter.

A. The *-óu-*, *-úi-* category.

The members of this category have a Plural stem ending in *-úi-*, corresponding with a root-morpheme ending in *-óu-*. These members are forms with the Plural stems:

krúi- (root-morpheme *króu-*) - sing;

krúi- (root-morpheme *króu-*) - bury;

kakrúi- (root-morpheme *kakróu-*) - cover;

krakúi- (root-morpheme *krakóu-*) - cover.

Examples:

krúitiu - we bury (or : sing) (here),

kakrúibákam or *krakúibákam* - they covered above.

B. The -áo-, -ái- category.

Members of this category have a Plural stem ending in *-ái-*, whereas the corresponding root-morpheme ends in *-áo-*. The members of this category are forms with the Plural stem *ingái-* (root-morpheme *ingáo-* - wash) and forms with the Plural stem *tekái-* (root-morpheme *tekáo-* - draw (water)); e.g.

ingáidíu - we will wash (here),
tekáingákam - they drew (water) below.

C. The -úo- + i category.

Members of this category have a Plural stem ending in *-uói-*, corresponding with a root-morpheme ending in *-úo-*. These members are forms with the Plural stem *sebuói-* (root-morpheme *sebuó-* - sew) and with the Plural stem *spuói-* (root-morpheme *spúo-* - take off), e.g.

sebuóidíu - we will sew (here),
spuóisiám - they take off (clothes) there.

D. The -in- category.

The members of this category have a Plural stem, ending in *-in-*, which is formally identical with the root-morpheme. These members are forms with the stem *ngesin-* - wipe off, e.g.

ngesínku - we wiped off (here),
ngesínsiáram - they will wipe off there.

E. The -yé-, -yéi- category.

Members of this category have a plural stem ending in *-yéi-*, whereas the corresponding root-morpheme ends in *-yé-*. The members of this category are forms with the Plural stem *skyéi-* root-morpheme *skýe-* - smoke) e.g.

skyéítiam - they smoke (here),
skyéinákú - we smoked below.

F. The -íe-, -íi- category.

The members of this category have a Plural stem ending in *-íi-*, whereas the corresponding root-morpheme ends in *-íe-*. These members are forms with the Plural stem *síi-* (root-morpheme *síe-* - squeeze), e.g.

súkam - they squeezed (here),
súibáru - we will squeeze above.

8. Blockading category of the First + Second Person Dual.

There is only one blockading category of the First + Second Person Dual. Its members have the same forms as those of the Productive category except for having an extra element *-man̩*- (*-men̩*- if followed by an Actor morpheme of the Apophonic series) which immediately precedes the Tense morpheme in Momentary forms of the First Position category, the Iterative morpheme in Iterative forms of the First Position category, and the Position morpheme in all the other forms; e.g. *hrikemendim* - you and we will descend (here) (cf. *hrikedú* - we two will descend here).

The members of this category are:

Unspecified Object forms with the root-morphemes

hri- - descend,
kan̩- - emaciate,
ngyn̩- - fall,
uú- - answer,
iapón̩- - bathe,
kry- - flee,
teyí- - jump,
prin̩- - be startled,
uén̩- - swing,
nin̩- - stand up,
kryá- - defecate,
uásin̩- - pass,
káo- - hide oneself,
sýe- - swim,
téy- - tremble,
kakrá- - die,
tóun̩- - float, rise to the surface,
 zero, with lexical meaning "go",
 zero, with lexical meaning "dream" (cf. § 2, E.),
 zero, with lexical meaning "make cat's-cradles" (cf. § 2, K.),
dekúo- - enter,
rekú- - turn round, face about,
re- - put on (clothes),
réi- - sleep;

Unspecified Object forms of the Second to Fifth Position categories with the root-morpheme *kri-* - flee;

Unspecified Object forms of the Sixth to Sixteenth Position categories with the root-morpheme *bekéi-* - rise, climb;

Momentary forms with zero root-morpheme and the lexical meaning "hear" (cf. § 2, *K.*);

Iterative forms of the Unspecified Object with the root-morphemes *ty-* - hear many,
zero, with lexical meaning "laugh" (cf. § 2, *E.*);

Plural Object forms with the root-morphemes

ííi- - divide, distribute,

kri- - close, shut,

kib- - beat, hit,

tebá- - bake, fry;

the forms with the root-morphemes *kri-* and *tebá-* are in competition with members of the productive category.

9. Blockading category of the First Person Plural.

The members of the only blockading category of the First Person Plural differ from those of the productive category in the same way as the members of the blockading category of the First + Second Person Dual, i.e. in having the element *-maŋ-* (*meŋ-*), e.g. *hríméndy* - we will descend (here) (cf. *hridy* - I will descend (here)).

The members of this category are:

Unspecified Object forms with the root-morphemes

kry- - flee,

bun- - wait,

tengréiŋ- - lead the way,

teyi- - jump,

prin- - be startled,

uéŋ- - swing,

niŋ- - stand up,

uásiŋ- - pass,

tóuŋ- - float, rise to the surface,

dekúo- - enter,

rekü- - turn round, face about,

re- - put on (clothes),

tekim- - move,
kryá- - defecate,
ái- - scream,
kaŋ- - emaciate,
ŋgyn- - fall,
uú- - answer,
réi- - sleep,
kakrá- - die,
téy- - tremble,
sýe- - swim,
 zero, with lexical meaning "go",
 zero, with lexical meaning "dream" (cf. § 2, *E.*),
 zero, with lexical meaning "make cat's-cradles" (cf. § 2, *K.*);

Iterative forms of the Unspecified Object with the root-morphemes

ty- - hear many,
kin- - gaze, stare,
 zero, with lexical meaning "laugh" (cf. § 2, *E.*);

Momentary forms of the Unspecified Object with zero root-morpheme and the lexical meaning "hear" (cf. § 2, *K.*);

Unspecified Object forms of the Sixth to Sixteenth Position categories with the root-morpheme *bekéi-* - rise, climb.

10. Blockading category of the Third Person Plural.

There is only one blockading category of the Third Person Plural. Its members are characterized by the Actor morpheme *-um* (*-ym* if they belong to a category having Actor morphemes of the Apophonic series) and the Singular stem of the root-morpheme, so that their form is identical with that of the corresponding Third Person Neutral Singular.

The members of this category are Unspecified Object forms with the root-morphemes:

ii- - burn,
réi- - sleep,
iapón- - bathe,
yý- - rise together,
patía- - hold a pig-feast.

The forms with root-morpheme *patía-* are in competition with members of the productive category.

Some examples :

yýkum - they rose together (here),
übérym - they will burn above,
iapuándum - they will bathe (here),
riátym - they sleep (here),
patiáresárum or *patiáiresáram* - they will hold a pig-feast there.

11. Blockading category of the Eighth Position.

The members of this category are characterized by a Position morpheme *sa-* that may have an accent and by having the common Actor morphemes instead of those of the Apophonic series. In the Future forms the Tense morpheme is *-r-*. The members of this category have zero root-morpheme and the lexical meaning "go". For the Singular forms free variants are found, having initial *h* instead of *s*. Examples :

kesáre - you two will go from here to below,
sátam or *hátam* - he goes from here to below.

12. Blockading category of the Ninth Position.

Members of this category are characterized by a Position morpheme *-na-* which may have an accent, and by the Actor morphemes not being of the Apophonic series. The morpheme of the Future is *-r-*.

The members of this category have zero root-morpheme and the lexical meaning "go", e.g.

náru - I will go from here to far away,
kenátum - they two go from here to far away.

13. Blockading category of the Tenth Position.

Members of this category differ from those of the productive category in having the common Actor morphemes instead of the Apophonic series.

They have zero root-morpheme and the lexical meaning "go"; e.g.

kantám - he goes (comes) from above (far away) to here,
kekandú - we two will go from above (far away) to here.

14. Blockading category of the Fifteenth Position.

The members of this category are different from those of the

productive category only in having the common series of Actor morphemes instead of the Apophonic. They are forms with the root-morpheme *tety-* - fall off, and forms with zero root-morpheme and the lexical meaning "go"; e.g.

kenáru - I will go from above (below, there) to far away,
tetykenanóm - it falls from above (there) to far away.

15. Blockading categories of the Infinitive.

A. The -áo category.

Members of this category end in -áo, whereas the corresponding root-morpheme ends in -á. The members of this category are:

bekáo - kick,
hráo - to carry on the shoulder,
íáo - to rub,
kráo - to sweep,
ndáo - to feel,
sáo - to drive away,
táo - to put (many objects),
tebáo - to fry,
tebáo - to give a wife,
tekiáo - to break open, to burst.

B. The -áu category.

Members of this category end in -áu, whereas the corresponding root-morphemes end in -á. These members are:

káu - to vomit,
práu - to dance,
ráu - to roast (many things),
tráu - to make (a garden).

C. The -ý category.

The members of this category end in -ý, just like the corresponding root-morphemes. They are:

iabý - to gather,
teký - to put (against a wall, etc.),

uauý - to take along,
tetý - to fall off.

D. The -i category.

The members of this category end in -*i* and are identical in form with the corresponding root-morphemes. These members are:

kri - to flee,
hri - to descend,
ii - to burn,
teyi - to jump.

E. The -óu category.

Members of this category end in -*óu*, whereas the corresponding root-morphemes end in -*ó*. These members are:

damgóu - to yawn,
tapóu - to help,
uóu - to paddle.

F. The -sin category.

The members of this category are characterized by an element -*sin* immediately following the root-morpheme. These members are:

kánsin - to put into the hair (root-morpheme *kan-*),
íasin - to bathe (root-morpheme *ia-*),
usin - to say (root-morpheme *u-* without accent),
usin - fall (rain) (root-morpheme *u-* without accent).

In some members, corresponding with verb-forms with zero root-morpheme, the place of the root-morpheme is occupied by the morpheme of the blockading Unspecified Object category to which those corresponding forms belong. This is the case with:

tásin - to hear (see § 2, *K.*),
tásin - to make cat's-cradles (see § 2, *K.*),
rásin - to dream (see § 2, *E.*).

16. Blockading words for the Infinitive.

Words which occupy the place of an Infinitive (because of their

meaning), so that this place is blocked for a normal Infinitive form, but do not belong to a category, are the following :

- uúo* - to answer (cf. root-morpheme *uú-*),
- hréi* - to lay across (cf. root-morpheme *hre-*),
- kéin* - to follow (cf. root-morpheme *keñ-*),
- ngýe* - to cleave (cf. root-morpheme *ngy-*),
- pýe* - to light (a fire) (cf. root-morpheme *péy-*),
- pýe* - to swell (cf. root-morpheme *péy-*),
- spóu* - to take off (clothes) (cf. root-morpheme *spúo-*),
- sii* - to squeeze (cf. root-morpheme *sie-*),
- tenián* - to appear, come out (cf. root-morpheme *tenéin-*),
- náo* - to break up (cf. root-morpheme *nóu-*),
- ruóu* - to tell (cf. root-morpheme *ro-*),
- dáo* - to give (many objects) (cf. root-morpheme *do-*),
- ráo* - to sleep (cf. root-morpheme *réi-*).

17. **Blockading category and a blockading word for the Final Infinitive.**

The members of the only blockading category for the Final Infinitive are characterized by reduplication of the initial consonant, with the vowel *e* in between, in spite of this initial consonant (in the Infinitive) already being followed by an *e* without accent and immediately followed by another consonant.

The members of this category are :

- bebesib* - in order to bend (Infinitive *besib*),
- bebetáo* - in order to pull out (Infinitive *betáo*),
- bebetýb* - in order to throw away (Infinitive *betýb*),
- dedekúo* - in order to enter (Infinitive *dekúo*),
- sesebúo* - in order to sew (Infinitive *sebúo*),
- tetebáo* - in order to fry (Infinitive *tebáo*).

The place for a Final Infinitive corresponding with the Infinitive *usín* - to say, is blocked by the word *uensín* - in order to say.

IV. THE ADDITIONAL CATEGORIES OF THE VERB-SYSTEM.

1. The Feminine Object category.

The members of this category are characterized in the same way as the corresponding Masculine Object forms but have, in addition, Actor morphemes of the Apophonic series. The categoric meaning is "the action is connected with an object, consisting of one or two beings of the female sex".

The members of this category are forms with the root-morphemes:

- yé-* - signal, *iyé-* - signal, *kyéb-* - signal, and *ngéin-* - forget, corresponding with Masculine Object forms of the *-demaŋ-*, *remaŋ-* category (see § 3, D.);
- ro-* - tell, corresponding with Masculine Object forms of the *-remaŋ-* category (see § 3, C.);
- téi-* - give, *do-* - give many objects, and forms with zero root-morpheme, having the lexical meaning "hear", corresponding with Masculine Object forms of the *-temaŋ-* category (see § 3, E.).

Some examples:

- kyépkremembedý* - we will signal her from here to above,
- róiremembékim* - they told her above,
- tietemenkenéy* - I give her below,
- dóitiemenséy* - we give her there (many things),
- temendim* - you and I will hear her (here).

2. The category of the Second Person Plural.

Members of this category have the same formal characteristics as the corresponding forms of the Second Person Dual but, in addition, have an element *-maŋ-* (*meŋ-* if followed by an Actor morpheme of the Apophonic series) immediately preceding the Tense morpheme in Momentary forms of the First Position category, the Iterative morpheme in Iterative forms of the First Position category, and the Position morpheme in all the other forms. The categoric meaning is "the action is attributed to a plural person addressed, as the actor".

So we find *kánkeméndi* - you (plur.) will emaciate, opposed to *kánkedi* - you two will emaciate; *hrikemenkenti* - you (plur.) descend from above to here, opposed to *hrikekenti* - you two descend from above to here.

The members of this category are :

Unspecified Object forms with the root-morphemes

kry- - flee,
bun- - wait,
tengréin- - lead the way,
teyí- - jump,
uén- - swing,
prin- - be startled,
nin- - stand up,
uásin- - pass,
tóun- - float,
dekúo- - enter,
rekii- - turn round,
re- - put on (clothes),
tekim- - move,
kryá- - defecate,
réi- - sleep,
uí- - answer,
ngyn- - fall,
kan- - emaciate,
ái- - scream,
kakrá- - die,
téy- - tremble,
sýe- - swim ;

Unspecified Object forms of the productive category with zero root-morpheme, having the lexical meaning “go”;

Unspecified Object forms of the *-ra-* category (see § 2, *E.*) with zero root-morpheme, lexical meaning “dream”;

Unspecified Object forms of the *-ta-* category (see § 2, *K.*) with zero root-morpheme, lexical meaning “make cat’s-cradles”;

Momentary forms of the *-ta-* category of the Unspecified Object (see § 2, *K.*) with zero root-morpheme, lexical meaning “hear”;

Iterative forms of the Unspecified Object category with the root-morphemes *ty-* - hear many, and *kin-* - gaze;

Iterative forms of the *-ra-* category of the Unspecified Object (see § 2, *E.*) with zero root-morpheme, lexical meaning “laugh”;

Unspecified Object forms of the Sixth to Sixteenth Position categories with root-morpheme *bekei-* - rise, climb.

V. THE MORPHOLOGICAL SYSTEM OF THE PRONOUNS.

1. Introduction.

The morphological system of the pronouns consists of a limited number of categories. These categories can not be called productive, because the number of the root-morphemes with which they occur is also limited. These root-morphemes are:

- ŋa-* having the lexical meaning "I, we" (the person addressed never included),
- ko-* with the lexical meaning "you",
- no-* with the lexical meaning "he, she, it, they",
- ió-* with the lexical meaning "you and I, you and we",
- naŋ-* with the lexical meaning "who?".

The forms with the root-morpheme *ŋa-* bear a semantic relation to the First Person category of the verb-system, those with root-morpheme *ko-* to the Second Person category, those with *no-* to the Third Person categories, and those with *ió-* to the First + Second Person category. All categories of the pronoun-system are mutually exclusive; so they are of the same order.

2. The zero category.

Members of this category are characterized by having the form of the bare root-morpheme; their common semantical element is "absence of stress and of explicit syntactic relation". The members are *ko*, *no*, and *ió*. For the root-morpheme *ŋa-* this category is blockaded by the word *ŋo* - I, me, we, us.

3. The *-me* category.

The members of this category are characterized by the element *-me* which immediately follows the root-morpheme and has no accent. The semantical element common to them is "stress" or "serial relation", e.g.

- ŋáme* - I!, me!,
- nóme*, *kóme*, *maría ne* - she, and you, and Mary.

For the root-morpheme *naŋ-* this category is blockaded by the word *náne* - who?, and who?

4. The *-mbe* category.

The members of this category are characterized by an element *-mbe* which immediately follows the root-morpheme and has no accent. Their common element of meaning is "possession" (in a broad sense), e.g.

ɲámbe - of me, mine, my, of us, our, ours,

kómbe - of you, your, yours.

For the root-morpheme *naɲ*- this category is blockaded by the word *nánde* - whose?, of whom?

5. The *-mýene* category.

The members of this category are characterized by an element *-mýene* immediately following the root-morpheme. The *y* of this morpheme has the accent. The common element of meaning is "to, at", so that the members have the same syntactical valence as phrases consisting of a substantive and the postposition *ne*, like *iamó ne* - to the house, e.g.

ɲamýene - to me, to us,

namýene - to whom?

From the last example it appears that the final *ɲ* of the root-morpheme *naɲ*- reacts to a *m*, immediately following within the word, in the same way as the final *ɲ* of root-morphemes of verbs.

6. The *-mso* category.

The members of this category are characterized by a formal element *-mso* immediately following the root-morpheme and by the semantical element "towards, to". In free variation with them, forms are found having *h* instead of the *s* of the morpheme, e.g.

nómso or *nómho* - to him, to her, to it, to them,

kómso or *kómho* - to you.

For the root-morpheme *naɲ*- this category is blockaded by the words *náɲho* and *nánso*, both meaning "to whom?".

7. The *-msié* category.

The members of this category are characterized by an element *-msié* which immediately follows the root-morpheme and has the accent on its final vowel, and by the semantical element "from", e.g.

iomsié - from you and me, from you and us,
namsié - from whom?

VI. MORPHOLOGICAL CATEGORIES OF THE SUBSTANTIVE.

1. Introduction.

The morphological possibilities of substantives are so few that we can hardly speak of a morphological system. There are only two categories, neither of them productive. The number of their members is also very small.

2. The *ne-* category.

The members of this category are characterized by an element *ne-* which immediately precedes the root-morpheme and has the word-accent, if the root-morpheme has only one vowel. Their common element of meaning is "relationship to a person or persons other than the speaker and the person (or persons) addressed".

The members of this category are :

néru - her husband (cf. *hru* - man, husband),
nemensé - his (her, their) brother-in-law, his (her, their) sister-in-law (cf. *mensé* - brother-in-law, sister-in-law),
nemáse - his (her, their) son (cf. *beremáse* - your son, see § 3),
nengesie - his (her, their) daughter (cf. *berengesie* - your daughter, see § 3),
néŋki - his wife (his, their wives) (cf. *ki* - woman, wife).

The small number of members of the category makes it impossible to decide, in how far the forms *néru* and *néŋki* might be called irregular.

3. The *bere-* category.

The two members of this category have an element *bere-*, immediately preceding the root-morpheme, and the semantical element "relationship to the person (or persons) addressed". They are :

berengesie - your daughter (cf. *nengesie* - his, her, or their daughter),
beremáse - your son (cf. *nemáse* - his, her, or their son).

So the forms corresponding with them are found in the *ne-* category (see § 2).

INDEX OF TERMS

The numbers refer to the pages where the term is introduced or defined,
or where the subject is discussed.

- accent, 36
- action, 57
- Actor categories, 57
- adaptation (of loan-words), 44
- additional categories, 123
- adjective, 120
- Apophonic series of
 - Actor morphemes, 72
- blockading categories, 54, 55, 123
- blockading words, 55
- categoric meaning, 53
 - categories, 51
 - competition, 55
 - conditioned word-alternants, 40, 41
 - consonants, 9 sqq.
 - consonant-sequences, 31
- Dual, 83
- Durative, 107
- Eighth Position category, 72
- Eleventh Position category, 74
- extra-systematical phonemes, 9
- extra-systematical consonant-
 - sequence, 36
- Feminine Object, 164
- Fifteenth Position category, 77
- Fifth Position category, 63
- Final Infinitive, 114
- First Person, 56
- First + Second Person, 80
- First + Second Person Dual, 85
- First Secondary Verb category, 117
- Fourteenth Position category, 77
- Fourth Position category, 63
- free alternants, 40, 42
- Future, 58
- Improductive categories, 54
- Infinitive, 111
- Infinitive (Final), 114
- interjection, 9, 36
- Iterative, 97
- lexical meaning, 53
 - loan-words, 43
- Masculine Object, 103
- Momentary, 98
- morphemes, 51
- Ninth Position category, 73
- Object (Feminine), 164
 - (Masculine), 103
 - (Plural), 105
 - (Unspecified), 106
- order of morphological categories, 55
- order of sound-characteristics, 7
- Past, 58
- phoneme, 8
- Plural, 91
- Plural Object, 105
- Plural Stem, 93
- Position categories, 62, 79
- Present, 58
- Present - Recent Past, 69
- productivity, 54
- pronoun, 167
- Recent Past, 60
- root-morpheme, 52
- Second Person, 56
- Second Person Plural, 165
- Second Position category, 62
- Second Secondary Verb
 - category, 121
- Secondary Verb category
 - (First), 117

- (Second), 121
- (Third), 122
- set (morphological), 52
- Seventh Position category, 71
- Singular Stem, 87
- Sixteenth Position category, 78
- Sixth Position category, 70
- speed-alternants, 40
- Stem (Plural), 93
 - (Singular), 87
- substantive, 169
- sub-words, 7, 39
- suppletion, 56
- system (morphological), 55
- system of phonemes, 9
- Tense, 60
- Tenth Position category, 73
- Third Person Masculine, 57
- Third Person Neutral, 58
- Third Position category, 63
- Third Secondary Verb category, 122
- Thirteenth Position category, 75
- Twelfth Position category, 75
- Unspecified Object, 106
- valence, 52
- verb, 56
- vowels, 10
- vowel-sequences, 27
- word, 7
- word-alternants, 39
- zero morphemes, 53

INDEX OF NIMBORAN WORDS

Hononymous forms are not kept apart.
Root-morphemes and stems are marked with a hyphen.

- | | |
|---|----------------------------------|
| <i>ái</i> , 18, 116 | <i>bekéi</i> , 11, 17, 115 |
| <i>ái-</i> , 94, 160, 166 | <i>bekie-</i> , 135 |
| <i>áiam</i> , 47 | <i>bembéin</i> , 16, 29 |
| <i>ámboŋ</i> , 26, 46 | <i>bembúŋ</i> , 115 |
| <i>amrika</i> , 33 | <i>benáe</i> , 11 |
| <i>ánsin</i> , 21 | <i>benaeskáru</i> , 12, 29 |
| <i>apián</i> , 13, 116 | <i>benán</i> , 44 |
| <i>apián-</i> , 130 | <i>bendéra</i> , 47 |
| <i>aringy</i> , 47 | <i>bengán</i> , 12, 22 |
| <i>asó</i> , 13 | <i>bengrib</i> , 17, 22 |
| | <i>bengimiy'ŋ</i> , 12 |
| <i>ba</i> , 11, 13, 15, 23 | <i>beráo</i> , 19 |
| <i>bábu</i> , 17 | <i>bére</i> , 42 |
| <i>bái</i> , 11, 17, 29 | <i>beremáse</i> , 169 |
| <i>baió</i> , 17 | <i>berengsie</i> , 169 |
| <i>báky</i> , 21 | <i>besám</i> , 13, 24 |
| <i>banéinguan</i> , 30 | <i>besí</i> , 19 |
| <i>bánia</i> , 45 | <i>besíb</i> , 24, 164 |
| <i>ban</i> , 17, 23 | <i>besib-</i> , 32,, 61 sqq., 96 |
| <i>bánko</i> , 45 | <i>besii-</i> , 96 |
| <i>báre</i> , 17, 42 | <i>besy'm</i> , 13 |
| <i>báru</i> , 17 | <i>betáo</i> , 19, 164 |
| <i>básom</i> , 43 | <i>betáo-</i> , 89, 95 |
| <i>bató</i> , 14, 121, 122 | <i>betaói-</i> , 13, 95 |
| <i>bauakróŋ</i> , 30 | <i>betóm</i> , 14 |
| <i>bauán</i> , 44 | <i>betuá-</i> , 89 |
| <i>be</i> , 11, 41 | <i>betúo</i> , 46 |
| <i>bébe</i> , 45 | <i>bety'b</i> , 164 |
| <i>bebesib</i> , 164 | <i>bety'b-</i> , 96, 132 |
| <i>bebetáo</i> , 164 | <i>bety'i-</i> , 96 |
| <i>bebety'b</i> , 164 | <i>béue</i> , 29 |
| <i>bebíe</i> , 114 | <i>bíe</i> , 17, 113, 114 |
| <i>bebrúb</i> , 115 | <i>bíe-</i> , 94, 117, 121, 123 |
| <i>bebruibám</i> , 32 | <i>biéi-</i> , 94 |
| <i>bebúo</i> , 114 | <i>biiáb</i> , 10, 28 |
| <i>beby'e</i> , 40 | <i>bra</i> , 46 |
| <i>bedí</i> , 10, 19 | <i>bránda</i> , 46 |
| <i>béin</i> , 17 | <i>brásin-</i> , 136, 143, 145 |
| <i>beká-</i> , 56 sqq., 162 | <i>bre</i> , 11, 45 |
| <i>bekáo</i> , 162 | <i>brimbu</i> , 10 |
| <i>bekéi-</i> , 131, 136, 159, 160, 166 | <i>brob</i> , 32 |

- brouári*, 31
bróuŋgye, 40
bróuŋye, 40
brub-, 16, 113, 115
brub-, 32, 61 sqq., 96
brúi-, 96
bruŋ, 17
bu, 13, 15, 17
buá, 15, 17
buásom, 43
búen, 20, 121
búen-, 153
buherái, 27
búi-, 95
bun, 17, 115
bun-, 133, 144, 147, 154, 159, 166
búo, 15, 114
búo-, 95
buserái, 27
by'e, 16
- dabúm*, 12
dáe, 16, 19, 29
daiáb, 29
dam, 12, 19, 115
dam-, 33, 111, 132
damgó-, 163
damgóu, 22, 33, 163
dámo, 46
dantrú, 34
dāngu, 35
dáo, 19, 112, 113, 164
darib, 10
dauém, 30
dāyŋ, 29
de, 11, 41
debúm, 12, 16
deby', 13
dedekúo, 164
dedrui, 115
dedy'e, 11, 18
déiŋ, 17, 115
déiŋ-, 133
dekám, 18
dekáo, 13
dekáo-, 89, 95
dekaóí-, 13, 30, 95
dekic, 11
dekuá-, 89
dekuám, 40
dekúo, 13, 164
dekúo-, 131, 158, 159, 166
deky'e, 11, 16
- dem*, 12
demamdó, 33
demápro, 14
demoiáku, 31
demsin, 33
demúe, 14, 17, 30
demy'e, 14, 18
dendám, 115
dendéiŋ, 115
dendóuŋ, 115
dendy'ŋ, 115
densián, 13, 24, 34
densión, 13, 29
depy'e, 16
desú, 19
déy, 18, 113
di, 11, 19, 21
dié, 41
dió, 19, 20
dipróki, 14, 15
do, 15, 19
do-, 133, 143, 164, 165
dob-, 136, 137
dói, 31, 46
dóu, 113
dóu-, 145
dóuŋ, 17, 115
dóuŋ-, 131
dréy, 19
dri-, 90, 113
drie-, 90
drii, 113, 115
dro-, 155
droá-, 155
drói-, 95
dróu, 34
dróu-, 95, 155
du, 11, 15
dum, 19
dūŋgrin, 35
dy-, 87, 113
dy'e-, 87
dy'en-, 88
dy'iŋ-, 147
dŋ, 115
dŋ-, 88, 141, 147, 149
- émbe*, 46
emberckáse, 24, 47
ensié, 45
epic, 11, 12, 16
esie, 10, 16

- ge*, 22, 41
gué, 41

habán, 27
habúm, 27
haió, 17, 23, 27, 29
háke, 11, 26
hakré, 43
hakrery'm, 43
háku, 21
háma, 46
hámbon, 26
hambuán, 17, 20
hamongrán, 27, 38
hamongreinty'n, 38
handán, 21, 42
handián, 42
hangái, 27
hapruá, 42
hapruó, 42
harimingu, 47
háru, 18
hauúo, 30
háye, 11, 24, 27
henín, 26
henán, 26
hení, 18, 21, 22
henínkenó, 35
henyéin, 43
hengó, 26
hengréin, 19
herikenúm, 24
hnan, 25, 36
hne, 26
hno, 25, 27
hnum, 25, 36
hnári, 25, 36
hngi, 36, 42
hngri, 36, 42
hngriuái, 42
ho, 26
hra-, 162
hraké, 43
hrakery'm, 43
hráo, 25, 162
hrap, 13, 24, 36
hre-, 164
hréi, 164
hremái, 42
hremé, 42
hréy, 19, 116
hri, 11, 24, 36, 116, 163
hri-, 124, 158

hrié-, 127, 153
hrii-, 127, 153
hrim, 10
hrin, 16
hru, 11, 169
hrub, 17, 116
hrub-, 97
hrúen, 154
hrúi-, 97
hrun, 17, 113, 116
hrun-, 154
hry-, 87
hry'e-, 87
hrym, 10, 16, 22, 24
húi, 30

i-, 124, 125, 141, 153, 156
iá-, 124, 156, 162, 163
iaby', 162
iaby'-, 136, 139, 145
iakéy, 21, 29
iakéy-, 131
iakó, 18, 28
iakuéi, 30
iáky, 22
iám, 28
iambeápdi, 29
iamó, 13, 18
iámson, 33
iantéin, 130
ianten-, 130, 142, 149, 150
ián, 25
ián-, 126, 141, 150, 151
iángu, 16
iangudemóüib, 31
iángy, 12
iángí-, 126
iánuon, 30
iáo, 14, 15, 28, 117, 162
iápi, 16
iapón-, 124, 158, 160
iapsenán, 32
iáre, 10, 12, 24
iári, 10, 11, 16
iáru, 10, 12, 14, 24
iáry, 14
iásin, 117, 163
iáu, 13, 15, 24, 28
iauá, 28, 121
iáun, 28
iáuo, 15, 28
iauón, 28
iauúo, 28

- iáy*, 14, 22, 28
ibú, 17
ibúo, 14, 17
iei, 28
ieiáo, 117
ieiásim, 117
iembrokáse, 47
ienó, 28
iéngy, 12
ieyenin, 11, 28
iéyi, 28
ii, 15, 28, 163
ii-, 160
iii, 10, 28
iii-, 128, 159
iingáo, 116
iiró, 116
iisiú, 116
ikeká, 19
imó, 13, 16, 18
imokáero, 12
imstúm, 33
imúo, 17
imy'ŋ, 10
indió, 21
indionéirum, 23, 29
indiongrán, 43
indiuŋ, 19
iniéuo, 28, 43
iniie, 28
inim, 28
inióiam, 42
inióm, 10, 21
insiuŋ, 21, 24, 28
inskúo, 34
insriŋ, 34
intiy'm, 21
ingá-, 154
ingái-, 157
ingámbu, 42
ingáo, 14, 116
ingáo-, 154, 157
ingeném, 43
ingeniéŋ, 43
ingíámbu, 42
ingóuŋ, 14
ió, 14, 20, 29, 167
ió-, 167
iomsié, 169
ióu, 13, 29
ipó, 16
iré, 12, 24
iró, 15, 18, 116
iró-, 131
iroá, 31
iróu, 15
irú, 12, 24
iry'b, 24
isie, 10
isiú, 24, 42, 116
isiú-, 135
isú, 17, 19, 24, 42
isú-, 135
iteká, 19
itiaokríu, 28
itiymbi, 28
itú, 19
iú, 28
iúárom, 28
iú, 15, 28
iumurú, 28
iy', 14, 28
iy'b-, 96
iyé, 28, 45
iyé, 130, 144, 151, 165
iyí-, 130
iy'i-, 96
iyindán, 28

ka, 10, 13, 14
ka-, 124, 162
kab, 21
kabí, 42
kabó, 17
kadó, 17
káe, 11, 19
kaiáo, 29
káiiŋ, 29, 44
kaiteró, 14, 29
kakrá, 34
kakrá-, 128, 158, 160, 166
kakróu, 43
kakróu-, 143, 156
kakrúu, 156
kamsyári, 29
kamtúo, 30, 33
kandóuŋ, 34
kánsim, 163
kan, 22
kan-, 124, 158, 160, 163, 166
káo-, 89, 129, 158
káon-, 89
kapenuám, 29
karéy, 21
karón, 23
kasbéuon, 11, 29, 36

- kásbi*, 45
káse, 45
kásian, 45
kasmándo, 36
káu, 162
kauáe, 13, 30
kauáe-, 130
kauái-, 130
kauáo, 30
kauúo, 30
kauydú, 30
káy, 14, 29
kebá, 42
kebí, 17, 42
kebó, 12, 14, 42
kebuá, 19, 30
keby', 12, 14
keikáo, 21, 29, 40
kéin, 164
kcirú, 11
keitré, 11, 33
keki, 12, 17, 21, 22
kekiá, 12
keruáb, 23
kekuy'e, 21, 30
kemúa, 42
kemúo, 42
kemy'e, 18
kenái, 20
kenáu, 30
kendó, 38
kené, 10, 11
kení, 10, 12, 19, 22
ken-, 133, 136, 143, 145, 146, 164
kenkin, 115
kenkry'n, 116
keré, 12
kertáse, 45
kcsy'e, 18
ketí, 17, 19
ki, 10, 16, 169
ki-, 128, 138
kib, 16, 22
kib-, 32, 132, 143, 159
kíe, 11, 17, 21, 25, 28, 37
kié, 11, 28, 37
kie-, 138
kien-, 138, 141, 153
kieróm, 28
kieténdy, 40
kin, 16, 112, 115
kin-, 124, 128, 138, 141, 142, 148,
149, 153, 160, 166
kip, 16
kitap, 45
ko, 18, 22, 167
ko-, 129, 167
kómbe, 168
kóme, 167
kómho, 26, 168
kómso, 26, 168
kontroási, 31, 34
kon, 14, 22
kon-, 133, 146
kra, 14
kra-, 162
krakóu, 43
krakóu-, 143, 156
krakúi-, 156
kráo, 30, 162
kráo-, 95, 154
kraói-, 30, 95
krapó, 15
kratáse, 45
kre, 12
kre-, 131
krebémkú, 33
krendiyá, 28
krendiyá-, 127
kréy-, 88
kri, 163
kri-, 64, 124, 128, 132, 135, 159
krie-, 129
kroá, 154
krom, 21
króu-, 117, 118, 119, 143, 156
kruá, 88
kruái-, 96
kruáu-, 88, 96
krúi-, 156
krúo-, 24, 117
kry-, 124, 158, 159, 166
kryá, 14
kryá-, 133, 158, 160, 166
kry'e-, 88
kry'en-, 94, 114
kry'i-, 135
kry'in-, 94
krym, 22, 24, 34
kryn, 114, 116
ku, 14
kuá-, 89, 143
kuáb, 22
kuáe, 11, 13, 30
kuáebu, 30
kuán-, 89

kuartakuém, 35

kudipró, 19

kuiám, 30

kuirób, 15, 30

kúisu, 30

kuotenán, 14

kuóu, 31

kúpskín, 32

kɿ, 13, 14

kyéb-, 32, 130, 144, 151, 165

ky'en-, 88

kym, 16, 47

kym-, 33, 131

kɿn, 14

kɿn-, 88, 124

kɿp, 16

ma, 12, 18

mab, 13, 16

mái, 17, 18, 39, 41

máise, 43

makó, 21

mam, 17, 18

mámbrob, 14, 33

mánin, 10

mániym, 28, 43

manó, 21

mánym, 43

maokri, 30

máre, 12, 17, 24, 42

maréma, 13

máro, 12

maroiáb, 31

máru, 18

masatekáte, 38

máse, 24, 43

matéb, 11

mbáreín, 33

mbásié, 9

mbrín, 33

me, 12, 14, 39, 41, 42

meám, 29

média, 42, 45

médio, 42, 45

méiu, 29

memúo, 114

mendín, 18

méndro, 34, 47

mendú, 12

menduáb, 19

menduáu, 30

méndy, 18

mení, 11, 18, 20

menó, 11

mensé, 12, 169

mensiá, 28

mensúe, 11, 34

mensy', 12, 21

mentimur, 46

mentín, 12, 18, 21, 34

menggyá-, 90

menggy'e, 18

menggyéi, 12

menggyéi-, 90, 94

mére, 37, 42

meré, 37, 40

merite, 46

méro, 40

mési, 11

mesy', 21

méue, 29

méuo, 11, 29

méy, 12, 14, 18

meyosúo, 11, 29

mína, 45

mindauó, 30

mínia, 45

minic, 21, 40

mín, 18

míngc, 43

míngic, 40, 43

mínnánteke, 35

mo, 12, 14, 18

moáib, 31

muá-, 139

múo, 15, 114

múo-, 130

nab, 21

nác, 21

náku, 21

namáryeb, 35

nambruón, 42

namsic, 169

námu, 18

namuán, 20

namy'enc, 29, 168

nanási, 46

nandán, 21

nánde, 20, 168

nándu, 20

nánc, 20, 21, 167

nánso, 168

nánteke, 15, 34

nañ, 17, 21, 25

nañ-, 167

- nángrei*, 10, 24, 29
nánho, 168
náo, 16, 19, 20, 21, 164
náre, 42
nárob, 24
násim, 10, 21
nátu, 18, 19
náu, 19
nauón, 30
nda-, 162
nduíó, 29
ndáo, 20, 162
nde, 11
ndéi, 11
ndi, 12, 19, 21
ndie, 12, 21
ndien, 20
ndiongrán, 43
ndop, 34
ne, 39
neikáo, 11, 40
néimbu, 43
nemáse, 169
nembie, 33
nembruón, 1, 42
nembruóun, 1, 31
némbru, 43
nemensé, 169
némia, 28
némbo, 15, 19, 33
nénskin, 34
nensyiáb, 29
nenjá, 113
nenjesié, 169
nenjúi-, 95
nenjúo, 115
nenjúo-, 95
nenjy'-, 136, 139, 142
nenjy'b, 13
nenjy'e, 40
nényi, 22, 35, 169
nére, 42
néru, 169
nie, 39, 42
nié, 39, 41, 42
niéuo, 43
nimbroun, 10, 14, 31
niñ, 18
niñ-, 135, 158, 159, 166
nióiam, 29, 42
nípun, 46
no, 21, 25, 167
no-, 167
noá-, 155
nom, 15
nóme, 167
nómho, 168
nómso, 168
nóu-, 155, 164
nu, 17, 21
num, 15, 16

ña-, 167
ñaió, 23
ñámbe, 168
ñáme, 167
ñámho, 33
ñamy'ene, 168
ñan, 18, 21, 22
ñare, 17, 23, 42
ñe, 39, 41, 42
ñéi, 23, 123
ñéi-, 90, 94
ñére, 42
ngan, 22
ngatéy, 12, 29
ngedáu, 116
ngedáu-, 88, 95
ngedéy, 19, 113, 116
ngedéy-, 88, 93
ngedói-, 95
ngedóu-, 89
ngeduá-, 88
ngedúo-, 89
ngedy'e-, 88
ngedy'i-, 14, 93
ngéim, 35
ngéim-, 139, 142, 165
ngeniém, 43
ngenjedáu, 116
ngengjedéy, 116
ngesiñ-, 91
ngesím, 22
ngesím-, 13
ngesin, 23
ngesin-, 91, 157
ngétám, 40
ngétán, 40
ngetéy, 12, 19
ngetéy-, 93
ngety'i-, 14, 29, 93
ngiái, 28
ngie, 23
ngran, 10, 35
ngrátru, 47
ngratúc, 47

- ngremí*, 1
ngrengréy, 116
ngréy, 116
ngréy-, 88
ngrién-, 91
ngriñ, 10, 113
ngriñ-, 91
ngruá-, 89
ngruáo, 30
ngruáo-, 89
ngrun-, 34, 35, 56 sqq.
ngry-, 140
ngry'e, 12
ngry'e-, 88
ngryéb-, 133
nguá, 18, 33
nguá-, 56 sqq., 89
nguáñ, 30
nguám, 18
guó, 43
guó-, 124
guóu-, 89
ngy, 43
ngy-, 87, 164
ngy'e, 164
ngy'e-, 87
ngyéñ-, 94, 155
ngyñ, 22, 23
ngyñ-, 124, 158, 160, 166
niá-, 90
no, 16, 21, 22, 23, 167
nuáron, 23
nyá-, 90
nyéi, 13, 23
nyéi-, 90

o-, 156
oá, 31
opiámun, 14
ornánin, 35

pab, 16
páe, 10, 13, 16, 43
pákruþ, 15, 24
pandái, 45
páo, 16
pásiuo, 29, 46
patiá-, 127, 160
páu-, 88, 95
pe, 39, 41
peb, 12, 16, 113
peb-, 32, 61 sqq., 96, 126, 141, 150
péi, 16

péi-, 90, 96
peitiuá, 18
pempéñ, 16, 33
pemprián, 33
pemprián-, 133
pempriñ, 116
pepáia, 45
pepráu, 115
peprib, 115
pésta, 36, 45
péy-, 93, 164
piá-, 90
piánngu, 16
pie, 10
pínsie, 46
po, 16, 39, 41
póí-, 95
pon, 20
pon-, 137, 138, 140, 144, 148
póu, 25, 31
póu-, 89, 95
pra, 13, 43
pra-, 133, 162
práisi, 29, 43
práo, 16
práo-, 141, 154
prási, 43, 47
práu, 43, 115, 162
préi, 29, 112, 113
préi-, 90, 94
prentón, 43
prentóun, 43
pri, 11, 16
priá-, 90
prib, 115
prib-, 22, 32, 33, 38, 70 sqq.,
96, 143, 145

príi-, 96
prin, 16, 24, 116
prin-, 134, 135, 158, 159, 166
pro, 11, 13, 15
proá-, 154
próuem, 31
próun, 32
pruþ, 45
prym, 16
puá-, 88
puáe, 43
pum, 15, 16, 17
pun-, 128, 142
puó-, 89
pyb, 12, 16, 113
pyb-, 32, 61 sqq., 96

- py'e*, 13, 164
py'en-, 88
py'i-, 96
pyŋ-, 88

ra-, 133, 162
rábu, 45
rádio, 45
ráo, 24, 25, 164
rásin, 21, 163
ráu, 112, 113, 162
ráyε, 24, 29
re-, 132, 134, 138, 158, 159, 166
reb, 16, 24
reb-, 16, 124, 133
rei-, 124, 134, 158, 160, 164, 166
reké, 11
rekéi, 17
rekéi-, 130
rekí, 22
rekiu-, 131, 139, 142, 150, 158, 159, 166
rekuám, 19, 40
remé-, 121
rengy'-, 136, 139, 142
rengy'e, 18, 40, 115
répe, 46
reréy, 116
rerí, 116
rerin, 23
rerúb, 116
rerún, 116
rie-, 91
rii-, 91, 94
ro, 23
ro-, 128, 142, 149, 152, 154, 164, 165
róbo, 46
róu, 15
rúε-, 154
rum, 19
ruóu, 15, 24, 164

sa, 11, 13, 18
sa-, 126, 141, 149, 162
sabó, 27
sábun, 46
sábun, 19, 46
saiángu, 27
sam, 13, 19, 27, 113
sam-, 33, 61 sqq.
samongrán, 27
sámsám, 38
saŋgái, 27
sáo, 21, 24, 162

saóin-, 95, 103 sqq.
sáon-, 89, 95, 103 sqq., 114
saremái, 42
sarmái, 35
sáum, 30
sbi, 36
sebúo, 113, 164
sebúo-, 157
sebuói-, 157
semánnga, 45
semín, 26
senán, 26
senskin, 116
sensón, 115
sengó, 26
senguám-, 130
sepátu, 45
seremái, 42
seremé, 42
sesebúo, 164
seskáb, 115
seskréy, 115
sespóu, 115
sesyéin, 114, 115
séy, 19
siá, 11, 28
siáb, 113
siáb-, 96
siái-, 96
sián, 25
sib, 10, 16, 22
sie, 37
sié, 37
sie-, 94, 157, 164
siéi-, 94
siepátu, 45
sii, 10, 164
sii-, 157, 158
siie, 28
singi, 42
singri, 42
singriuái, 28, 42
sip, 16
skab, 115
skab-, 96, 141
skái-, 96
skiá, 30
skie, 25
skieténdy, 40
skin, 24, 116
skin-, 137, 142
skom, 36
skréy, 36, 115

- skry-*, 137, 139
skúo, 14
sky'e, 113
sky'e-, 157
skyéi-, 157
sne, 26, 36
sno, 27, 36
so, 26
son, 14, 22, 23, 114, 115
spátu, 45
spóu, 15, 25, 35, 115, 164
spron, 35
spúo-, 157, 164
spuóí-, 157
st, 36
su, 21
suámprin, 33
suán-, 35, 89, 103 sqq.
sukudréi, 34
sum, 18
sundauéin, 30
sun, 17, 18
súrin, 46
sy, 13, 17
syb, 10, 17
sy'e-, 127, 158, 160, 166
syéi, 23
syéin, 114, 115
syéin-, 94, 155
sy'sy, 45

ta, 39, 41
ta-, 162
tab, 13
tabúa, 30
takryéi, 29
takuáb, 22
takuém, 30
tákuo, 30
tamtoái, 31, 33
táne, 11
tanǵán, 13, 23
táo, 112, 113, 162
tapó-, 149, 163
tapón, 163
taringy, 47
taruáb, 22
tásin, 163
tauá, 30
tauái, 30
táuo, 30
tauúe, 30
tayéi, 29

tayéi-, 89
tayía-, 89
tebá-, 132, 141, 159, 162
tebáo, 14, 162, 164
tebíe, 28
tébu, 37
tebú, 37
tebuá, 19
téi, 16, 19, 113
téi-, 126, 141, 144, 150, 165
teiyien, 20
teká-, 154
tekái-, 157
tekám, 18
tekáo-, 154, 157
tekiá-, 162
tekíe, 130
tekím-, 133, 160, 166
tekiáo, 28, 162
tekú-, 126, 141, 150, 151
tekuá, 13
tekuám, 19
teky', 162
teky'-, 133
tekyá-, 89
teky'e, 16, 29
tekyéi-, 89
temakué, 30
temánte, 47
temáte, 45, 47
temien, 28
tém̃po, 19
temún, 23
temy'én-, 153
temy'én, 113
temy'én-, 153
tenán, 11, 18
tendiyám, 28
téndy, 18
tenéin, 115
tenéin-, 90, 132, 164
tenián, 11, 164
tenián-, 90
tentenéin, 115
tentengán, 115
tentrin, 116
tengán, 113, 115
tengán-, 26, 35, 56 sqq.
tengéin, 23, 113
tengéin-, 90, 94
tengíán-, 90
tengréin, 19
tengréin-, 133, 159, 166

u-, 124, 125, 141, 156, 163
 uá, 17
 uá-, 88
 uáb, 15, 22
 uái, 20, 30
 uái-, 96
 uáipon, 20
 uáipon̄, 20
 uáiprom, 32
 uaiṗuá, 30
 uaisímon, 20
 uaiuári, 30
 uáke, 46
 uansáia, 29
 uán̄keru, 35
 uáron̄, 23, 30
 uaruiéri, 30
 uásim-, 131, 158, 159, 166
 uáu, 30, 117
 uáu-, 88, 96
 uauy', 30, 163
 uauy'-, 64, 139, 142, 147
 ueián̄, 30
 uendi, 30
 uensim̄, 164
 uén̄, 12
 uén̄-, 134, 158, 159, 166
 uéy, 30
 uía, 30
 uib, 30
 uió, 30
 umic, 15, 18
 undúo, 47
 unic, 18
 un̄gúo, 43
 un̄gúo-, 124
 un̄gy', 43
 uó, 25, 30, 113, 117
 uó-, 56 sqq., 95, 155, 163
 uói-, 95
 uón̄, 12
 uóu, 19, 117, 163
 uóu-, 89, 155
 noupri, 31
 urán̄, 23
 usim̄, 23, 163, 164
 usó, 13, 25
 usyéb, 29
 utób, 14
 uu-, 124, 126, 141, 151, 158, 160,
 164, 166
 uuáu, 117
 uúu, 30, 117

uúo, 30, 117, 164*uuó*, 30, 117*uuóu*, 30, 117*y'a*, 29*yá*, 29, 117*yá-*, 138, 142, 149*yé*, 11, 13, 29, 43, 117*yé-*, 130, 144, 151, 165*yésku*, 13, 36*yí-*, 130*yío*, 29*yíodi*, 29*yuá*, 29, 117*yué*, 29, 117*yy'*, 29*yy'-*, 124, 160

zero root-morpheme, lexical meaning:

be, 122, 135

become, 121

bring, 113, 129

dream, 129, 142, 149, 158, 160, 163,
166

extend, 134

go, 125, 158, 160, 161, 162, 166

hear, 134, 140, 143, 159, 160, 163,
165, 166

kiss, 135, 140

laugh, 129, 159, 160, 166

make cat's-cradles, 134, 158, 160,
163, 166

say, 151

sleep, 124, 134

TABLE OF VERB-FORMS

ROOT-MORPHEME	:	ngedóu-
SINGULAR STEM	:	ngedúo-
PLURAL STEM	:	ngedói-
INFINITIVE	:	ngedóu
FINAL INFINITIVE	:	ngengedóu

N.B. No alternant forms are given in this table.

(I) **UNSPECIFIED OBJECT — MOMENTARY**

	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Future				
Sing. 1	ngedúodu	ngedúobáru	ngedúonáru	ngedúosáru
2	ngedúode	ngedúobáre	ngedúonáre	ngedúosáre
3n.	ngedúodum	ngedúobárum	ngedúonárum	ngedúosárum
3m.	ngedúodam	ngedúobáram	ngedúonáram	ngedúosáram
1+2	ngedúomandám	ngedúomambáram	ngedúomanjáram	ngedúomansáram
Dual 1	ngedóukedú	ngedóukebáru	ngedóukenjáru	ngedóukesáru
2	ngedóukedé	ngedóukebáre	ngedóukenjáre	ngedóukesáre
3n.	ngedóukedúm	ngedóukebárum	ngedóukenjárum	ngedóukesárum
3m.	ngedóukedám	ngedóukebáram	ngedóukenjáram	ngedóukesáram
1+2	ngedóukedám	ngedóukebáram	ngedóukenjáram	ngedóukesáram
Plur. 1	ngedóidiu	ngedóibáru	ngedóinjáru	ngedóisiáru
3	ngedóidiam	ngedóibáram	ngedóinjáram	ngedóisiáram
Present				
Sing. 1	ngedúotu	ngedúobáu	ngedúokenjáu	ngedúosáu
2	ngedúote	ngedúobáe	ngedúokenjáe	ngedúosáe
3n.	ngedúotum	ngedúobóm	ngedúokenjóm	ngedúosóm
3m.	ngedúotam	ngedúobám	ngedúokenjám	ngedúosám
1+2	ngedúomantám	ngedúomambám	ngedúomankenjáram	ngedúomansám
Dual 1	ngedóuketú	ngedóukebáu	ngedóukekenjáu	ngedóukesáu
2	ngedóuketé	ngedóukebáe	ngedóukekenjáe	ngedóukesáe
3n.	ngedóuketúm	ngedóukebóm	ngedóukekenjóm	ngedóukesóm
3m.	ngedóuketám	ngedóukebám	ngedóukekenjám	ngedóukesám
1+2	ngedóuketám	ngedóukebám	ngedóukekenjám	ngedóukesám
Plur. 1	ngedóitiu	ngedóibáu	ngedóikenjáu	ngedóisiáu
3	ngedóítiam	ngedóibám	ngedóikenjáram	ngedóisiáram

Recent Past

Sing. 1	ngedúopu	Same	Same
2	ngedúope		
3n.	ngedúopum		
3m.	ngedúopam		
1+2	ngedúomampám		
Dual 1	ngedúukepú		
2	ngedúukepé	as	as
3n.	ngedúukepum		
3m.	ngedúukepám		
1+2	ngedúukepám		
Plur. 1	ngedúopu	Present	Present
3	ngedóipam		

Past

Sing. 1	ngedúoku	ngedúonáku	ngedúosáku
2	ngedúoke	ngedúonáke	ngedúosáke
3n.	ngedúokum	ngedúonákum	ngedúosákum
3m.	ngedúokam	ngedúonákam	ngedúosákam
1+2	ngedúomankám	ngedúomanakám	ngedúomansakám
Dual 1	ngedúukekú	ngedúukeñáku	ngedúukesáku
2	ngedúukeké	ngedúukeñáke	ngedúukesáke
3n.	ngedúukekúm	ngedúukeñákum	ngedúukesákum
3m.	ngedúukekám	ngedúukeñákam	ngedúukesákam
1+2	ngedúukekám	ngedúukeñákam	ngedúukesákam
Plur. 1	ngedúoiku	ngedóinjáku	ngedóisiáku
3	ngedóikam	ngedóinjakam	ngedóisiakam

Future

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Sing. 1	ngedúonáru	ngedúobedú	ngedúosedú	ngedúosedý
2	ngedúonáre	ngedúobedé	ngedúosedé	ngedúosedí
3n.	ngedúonárum	ngedúobedúm	ngedúosedúm	ngedúosedým
3m.	ngedúonáram	ngedúobedám	ngedúosedám	ngedúosedím
1+2	ngedúomanáram	ngedúomambedám	ngedúomansedám	ngedúomansedím
Dual 1	ngedúukenáru	ngedúukebedú	ngedúukesedú	ngedúukesedý
2	ngedúukenáre	ngedúukebedé	ngedúukesedé	ngedúukesedí
3n.	ngedúukenárum	ngedúukebedúm	ngedúukesedúm	ngedúukesedým
3m.	ngedúukenáram	ngedúukebedám	ngedúukesedám	ngedúukesedím
1+2	ngedúukenaráram	ngedúukebedám	ngedúukesedám	ngedúukesedím
Plur. 1	ngedóiniáru	ngedóibedú	ngedóisiertú	ngedóisiertý
3	ngedóiniáram	ngedóibedám	ngedóisiertám	ngedóisiertím

Present

Sing. 1	ngedúonáu	ngedúobetú	ngedúosetú	ngedúosetý
2	ngedúonáe	ngedúobeté	ngedúoseté	ngedúosetí
3n.	ngedúonóm	ngedúobetúm	ngedúosetúm	ngedúosetým
3m.	ngedúonám	ngedúobetám	ngedúosetám	ngedúosetím
1+2	ngedúomanáu	ngedúomambetám	ngedúomansetám	ngedúomansetím
Dual 1	ngedúukenáu	ngedúukebetú	ngedúukesetú	ngedúukesetý
2	ngedúukenáe	ngedúukebeté	ngedúukeseté	ngedúukesetí
3n.	ngedúukenóm	ngedúukebetúm	ngedúukesetúm	ngedúukesetým
3m.	ngedúukenám	ngedúukebetám	ngedúukesetám	ngedúukesetím
1+2	ngedúukenám	ngedúukebetám	ngedúukesetám	ngedúukesetím
Plur. 1	ngedóiniáu	ngedóibetú	ngedóisiertú	ngedóisiertý
3	ngedóiniám	ngedóibetám	ngedóisiertám	ngedóisiertím

	<i>9th Pos.</i>	<i>10th Pos.</i>	<i>11th Pos.</i>	<i>12th Pos.</i>
Future				
Sing. 1	ngedúoneny	ngedúokeny	ngedúobándu	ngedúosándu
2	ngedúonedi	ngedúokendi	ngedúobánde	ngedúosánde
3n.	ngedúoneným	ngedúokeným	ngedúobándum	ngedúosándum
3m.	ngedúonedi	ngedúokendi	ngedúobándam	ngedúosándam
1+2	ngedúomenedim	ngedúomenkendi	ngedúomambándam	ngedúomansándam
Dual 1	ngedúokenedy	ngedúokekendi	ngedúokebándu	ngedúokesándu
2	ngedúokenedi	ngedúokekendi	ngedúokebánde	ngedúokesánde
3n.	ngedúokenedým	ngedúokekeným	ngedúokebándum	ngedúokesándum
3m.	ngedúokenedim	ngedúokekendim	ngedúokebándam	ngedúokesándam
1+2	ngedúokenedim	ngedúokekendim	ngedúokebándam	ngedúokesándam
Plur. 1	ngedóiniedy	ngedóikeny	ngedóibándu	ngedóisiándu
3	ngedóimiedim	ngedóikendim	ngedóibándam	ngedóisiándam
Present				
Sing. 1	ngedúonety	ngedúokenty	ngedúobántu	ngedúosántu
2	ngedúoneti	ngedúokenti	ngedúobánte	ngedúosánte
3n.	ngedúonetým	ngedúokentým	ngedúobántum	ngedúosántum
3m.	ngedúonetim	ngedúokentim	ngedúobántam	ngedúosántam
1+2	ngedúomenetim	ngedúomenkentim	ngedúomambántam	ngedúomansántam
Dual 1	ngedúokenety	ngedúokekenty	ngedúokebántu	ngedúokesántu
2	ngedúokeneti	ngedúokekenti	ngedúokebánte	ngedúokesánte
3n.	ngedúokenetým	ngedúokekeným	ngedúokebántum	ngedúokesántum
3m.	ngedúokenetim	ngedúokekentim	ngedúokebántam	ngedúokesántam
1+2	ngedúokenetim	ngedúokekentim	ngedúokebántam	ngedúokesántam
Plur. 1	ngedóiniety	ngedóikenty	ngedóibántu	ngedóisiántu
3	ngedóinietim	ngedóikentim	ngedóibántam	ngedóisiántam

Recent Past

Sing.	1	ngedúonepý			
	2	ngedúonepí		ngedúobámpu	ngedúosámpu
	3n.	ngedúonepým		ngedúobámpe	ngedúosámpe
	3m.	ngedúonepim		ngedúobámpum	ngedúosámpum
Dual	1+2	ngedúonenepim		ngedúobámpam	ngedúosámpam
	1	ngedúokenepý	ngedúomenepím	ngedúomambámpám	ngedúomansámpám
	2	ngedúokenepí	ngedúokenepý	ngedúokebámpu	ngedúokesámpu
	3n.	ngedúokenepým	ngedúokenepím	ngedúokebámpe	ngedúokesámpe
Plur.	3m.	ngedúokenepim	ngedúokenepým	ngedúokebámpum	ngedúokesámpum
	1+2	ngedúokenepim	ngedúokenepím	ngedúokebámpam	ngedúokesámpam
	1	ngedúoinepý	ngedúokenepím	ngedúokebámpám	ngedúokesámpám
	3	ngedúoinepim	ngedúoinepým	ngedúobámpu	ngedúoisámpu
				ngedúobámpam	ngedúoisámpam

Past

Sing.	1	ngedúoneký			
	2	ngedúonekí		ngedúobánku	ngedúosánku
	3n.	ngedúonekým		ngedúobánke	ngedúosánke
	3m.	ngedúonekim		ngedúobánkum	ngedúosánkum
Dual	1+2	ngedúonenekim		ngedúobánkam	ngedúosánkam
	1	ngedúomenekým	ngedúomenekím	ngedúomambánkám	ngedúomansánkám
	2	ngedúokeneký	ngedúokeneký	ngedúokebánku	ngedúokesánku
	3n.	ngedúokenekí	ngedúokenekím	ngedúokebánke	ngedúokesánke
Plur.	3m.	ngedúokenekim	ngedúokenekým	ngedúokebánkum	ngedúokesánkum
	1+2	ngedúokenekim	ngedúokenekím	ngedúokebánkam	ngedúokesánkam
	1	ngedúoineký	ngedúokenekím	ngedúokebánkám	ngedúokesánkám
	3	ngedúoinekim	ngedúoinekým	ngedúobánku	ngedúoisánku
				ngedúobánkam	ngedúoisánkam

	<i>13th Pos.</i>	<i>14th Pos.</i>	<i>15th Pos.</i>	<i>16th Pos.</i>
Future				
Sing. 1	ngedúobenáru	ngedúosenáru	ngedúokenéry	ngedúosenéry
2	ngedúobenáre	ngedúosenáre	ngedúokenéri	ngedúosenéri
3n.	ngedúobenárum	ngedúosenárum	ngedúokenérym	ngedúosenérym
3m.	ngedúobenám	ngedúosenám	ngedúokenérím	ngedúosenérím
1+2	ngedúomambenarám	ngedúomansenarám	ngedúomerykenérím	ngedúomensenérím
Dual 1	ngedóukebenáru	ngedóukesenáru	ngedóukekenéry	ngedóukesenéry
2	ngedóukebenáre	ngedóukesenáre	ngedóukekenéri	ngedóukesenéri
3n.	ngedóukebenárum	ngedóukesenárum	ngedóukekenérym	ngedóukesenérym
3m.	ngedóukebenarám	ngedóukesenarám	ngedóukekenérím	ngedóukesenérím
1+2	ngedóukebenarám	ngedóukesenarám	ngedóukekenérím	ngedóukesenérím
Plur. 1	ngedóibenáru	ngedóisienáru	ngedóikenéry	ngedóisienéry
3	ngedóibenarám	ngedóisienarám	ngedóikenérím	ngedóisienérím
Present				
Sing. 1	ngedúobenanáu	ngedúosenanáu	ngedúokenenény	ngedúosenenény
2	ngedúobenanáe	ngedúosenanáe	ngedúokenenéri	ngedúosenenéri
3n.	ngedúobenanóm	ngedúosenanóm	ngedúokeneným	ngedúoseneným
3m.	ngedúobenanam	ngedúosenanam	ngedúokeneném	ngedúoseneném
1+2	ngedúomambenanám	ngedúomansenanamám	ngedúomerykeneném	ngedúomenseneném
Dual 1	ngedóukebenanáu	ngedóukesenanáu	ngedóukekenenény	ngedóukesenenény
2	ngedóukebenanáe	ngedóukesenanáe	ngedóukekenenéri	ngedóukesenenéri
3n.	ngedóukebenanóm	ngedóukesenanóm	ngedóukekeneným	ngedóukeseneným
3m.	ngedóukebenanam	ngedóukesenanamám	ngedóukekeneném	ngedóukeseneném
1+2	ngedóukebenanamám	ngedóukesenanamám	ngedóukekeneném	ngedóukeseneném
Plur. 1	ngedóibenanáu	ngedóisienanáu	ngedóikenenény	ngedóisienenény
3	ngedóibenanamám	ngedóisienanamám	ngedóikeneném	ngedóisieneném

Recent Past

Sing. 1			
2			
3n.			
3m.			
1+2			
Dual 1	Same	Same	Same
2			
3n.			
3m.			
1+2			
Plur. 1	as	as	as
3			
	Present	Present	Present

Past

Sing. 1	ngedúobenáku	ngedúosenáku	ngedúosenéky
2	ngedúobenáke	ngedúosenáke	ngedúosenéki
3n.	ngedúobenákum	ngedúosenákum	ngedúosenékym
3m.	ngedúobenákam	ngedúosenákam	ngedúosenékim
1+2	ngedúomambenakám	ngedúomansenakám	ngedúomensenekím
Dual 1	ngedóukebenáku	ngedóukesenáku	ngedóukesenéký
2	ngedóukebenáke	ngedóukesenáke	ngedóukesenéki
3n.	ngedóukebenákum	ngedóukesenákum	ngedóukesenékym
3m.	ngedóukebenákam	ngedóukesenákam	ngedóukesenékim
1+2	ngedóukebenakám	ngedóukesenakám	ngedóukesenekím
Plur. 1	ngedóibenáku	ngedóisienáku	ngedóisienéký
3	ngedóibenákam	ngedóisienákam	ngedóisienekím

(1) UNSPECIFIED OBJECT — ITERATIVE

	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Present				
Sing. 1	ngedúokátu	ngedúobekátu	ngedúongátu	ngedúoskátu
2	ngedúokáte	ngedúobekáte	ngedúongáte	ngedúoskáte
3n.	ngedúokátum	ngedúobekátum	ngedúongátum	ngedúoskátum
3m.	ngedúokátam	ngedúobekátam	ngedúongátam	ngedúoskátam
1+2	ngedúomankatám	ngedúomambekátám	ngedúomangátám	ngedúomanskátám
Dual 1	ngedóukekátu	ngedóukebekátu	ngedóukeŋgátu	ngedóukeskátu
2	ngedóukekáte	ngedóukebekáte	ngedóukeŋgáte	ngedóukeskáte
3n.	ngedóukekátum	ngedóukebekátum	ngedóukeŋgátum	ngedóukeskátum
3m.	ngedóukekátam	ngedóukebekátam	ngedóukeŋgátam	ngedóukeskátam
1+2	ngedóukekatám	ngedóukebekatám	ngedóukeŋgatám	ngedóukeskatám
Plur. 1	ngedóikátu	ngedóibekátu	ngedóingátu	ngedóískátu
3	ngedóikátam	ngedóibekátam	ngedóingátam	ngedóískátam

	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Recent Past				
Sing. 1	ngedúokápu			Same
2	ngedúokápe			
3n.	ngedúokápum			
3m.	ngedúokápam			
1+2	ngedúomanḱapám			
Dual 1	ngedóukekápu			as
2	ngedóukekápe			
3n.	ngedóukekápum			
3m.	ngedóukekápam			
1+2	ngedóukekapám			
Plur. 1	ngedóikápu			Present
3	ngedóikápam			

Past

Sing. 1	ngedúokáku	ngedúobekáku	ngedúongáku	ngedúoskáku
2	ngedúokáke	ngedúobekáke	ngedúongáke	ngedúoskáke
3n.	ngedúokákum	ngedúobekákum	ngedúongákum	ngedúoskákum
3m.	ngedúokákam	ngedúobekákam	ngedúongákam	ngedúoskákam
1+2	ngedúomankakám	ngedúomambekakám	ngedúomangákám	ngedúomanskakám
Dual 1	ngedóukekáku	ngedóukebekáku	ngedóukengáku	ngedóukeskáku
2	ngedóukekáke	ngedóukebekáke	ngedóukengáke	ngedóukeskáke
3n.	ngedóukekákum	ngedóukebekákum	ngedóukengákum	ngedóukeskákum
3m.	ngedóukekákam	ngedóukebekákam	ngedóukengákam	ngedóukeskákam
1+2	ngedóukekakám	ngedóukebekakám	ngedóukengakám	ngedóukeskakám
Plur. 1	ngedóikáku	ngedóibekáku	ngedóingáku	ngedóiskáku
3	ngedóikákam	ngedóibekákam	ngedóingákam	ngedóiskákam

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Present				
Sing. 1	ngedúonenngátú	ngedúobekátú	ngedúoskátú	ngedúoskétý
2	ngedúonenngáte	ngedúobekáte	ngedúoskáte	ngedúoskétí
3n.	ngedúonenngátum	ngedúobekátum	ngedúoskátum	ngedúoskétým
3n.	ngedúonenngátam	ngedúobekátam	ngedúoskátam	ngedúoskétím
1+2	ngedúomanengátám	ngedúomambekátám	ngedúomanskátám	ngedúomenskétím
Dual 1	ngedóukenengátú	ngedóukebekátú	ngedóukeskátú	ngedóukeskétý
2	ngedóukenengáte	ngedóukebekáte	ngedóukeskáte	ngedóukeskétí
3n.	ngedóukenengátum	ngedóukebekátum	ngedóukeskátum	ngedóukeskétým
3n.	ngedóukenengátam	ngedóukebekátam	ngedóukeskátam	ngedóukeskétím
1+2	ngedóukenengátám	ngedóukebekátám	ngedóukeskátám	ngedóukeskétím
Plur. 1	ngedóiniengátú	ngedóibekátú	ngedóískátú	ngedóískétý
3	ngedóiniengátam	ngedóibekátam	ngedóískátam	ngedóískétím
Recent Past				
Sing. 1		ngedúobekápu	ngedúoskápu	ngedúosképy
2		ngedúobekápe	ngedúoskápe	ngedúosképi
3n.	Same	ngedúobekápum	ngedúoskápum	ngedúosképym
3n.		ngedúobekápam	ngedúoskápam	ngedúosképim
1+2		ngedúomambekápám	ngedúomanskápám	ngedúomenskepím
Dual 1	as	ngedóukebekápu	ngedóukeskápu	ngedóukesképy
2		ngedóukebekápe	ngedóukeskápe	ngedóukesképi
3n.		ngedóukebekápum	ngedóukeskápum	ngedóukesképym
3n.	Present	ngedóukebekápam	ngedóukeskápam	ngedóukesképim
1+2		ngedóukebekápám	ngedóukeskápám	ngedóukeskepím
Plur. 1		ngedóibekápu	ngedóískápu	ngedóísképy
3		ngedóibekápam	ngedóískápam	ngedóísképim

Past

Sing.	1	ngedúonengáku	ngedúobekáku	ngedúoskáku	ngedúoskéky
	2	ngedúonengáke	ngedúobekáke	ngedúoskáke	ngedúoskéki
	3n.	ngedúonengákum	ngedúobekákum	ngedúoskákum	ngedúoskékym
	3m.	ngedúonengákam	ngedúobekákam	ngedúoskákam	ngedúoskékim
	1+2	ngedúomanengákám	ngedúomanbekákám	ngedúosmansakákám	ngedúomenskekím
Dual	1	ngedóukenengáku	ngedóukebekáku	ngedóukeskáku	ngedóukeskéky
	2	ngedóukenengáke	ngedóukebekáke	ngedóukeskáke	ngedóukeskéki
	3n.	ngedóukenengákum	ngedóukebekákum	ngedóukeskákum	ngedóukeskékym
	3m.	ngedóukenengákam	ngedóukebekákam	ngedóukeskákam	ngedóukeskékim
	1+2	ngedóukenengákám	ngedóukebekákám	ngedóukeskakám	ngedóukeskekím
Plur.	1	ngedóimienngáku	ngedóibekáku	ngedóískáku	ngedóískéky
	3	ngedóimienngákam	ngedóibekákam	ngedóískákam	ngedóískékím

		9 th Pos.	10 th Pos.	11 th Pos.	12 th Pos.
Present					
Sing.	1	ngedúonengetý	ngedúongentý	ngedúobekántu	ngedúoskántu
	2	ngedúonengeti	ngedúongenti	ngedúobekánte	ngedúoskánte
	3n.	ngedúonengetým	ngedúongentým	ngedúobekántum	ngedúoskántum
	3m.	ngedúonengetím	ngedúongentím	ngedúobekántam	ngedúoskántam
Dual	1+2	ngedúomenengetím	ngedúomengentím	ngedúomambekántám	ngedúomanskántám
	1	ngedúokenengétu	ngedóukenengétý	ngedóukebekántu	ngedóukeskántu
	2	ngedúokenengéti	ngedóukenengenti	ngedóukebekánte	ngedóukeskánte
	3n.	ngedúokenengétým	ngedóukenengentým	ngedóukebekántum	ngedóukeskántum
Plur.	3m.	ngedúokenengétím	ngedóukenengentím	ngedóukebekántam	ngedóukeskántam
	1+2	ngedóukenengétím	ngedóukenengentím	ngedóukebekántám	ngedóukeskántám
	1	ngedóiniengetý	ngedóingentý	ngedóibekántu	ngedóískántu
	3	ngedóiniengetím	ngedóingentím	ngedóibekántam	ngedóískántam
Recent Past					
Sing.	1	ngedúonengetý	ngedúongempý	ngedúobekámpu	ngedúoskámpu
	2	ngedúonengeti	ngedúongempi	ngedúobekámpe	ngedúoskámpe
	3n.	ngedúonengetým	ngedúongempým	ngedúobekámpum	ngedúoskámpum
	3m.	ngedúonengetím	ngedúongempím	ngedúobekámpam	ngedúoskámpam
Dual	1+2	ngedúomenengetím	ngedúomengempím	ngedúomambekámpám	ngedúomanskámpám
	1	ngedóukenengépy	ngedóukenengempý	ngedóukebekámpu	ngedóukeskámpu
	2	ngedóukenengépi	ngedóukenengempi	ngedóukebekámpe	ngedóukeskámppe
	3n.	ngedóukenengétým	ngedóukenengempým	ngedóukebekámpum	ngedóukeskámpum
Plur.	3m.	ngedóukenengétím	ngedóukenengempím	ngedóukebekámpam	ngedóukeskámpam
	1+2	ngedóukenengetím	ngedóukenengentím	ngedóukebekámpám	ngedóukeskámpám
	1	ngedóiniengetý	ngedóingempý	ngedóibekámpu	ngedóískámpu
	3	ngedóiniengetím	ngedóingempím	ngedóibekámpam	ngedóískámpam

Past

Sing.	1	ngeđúonenęéký	ngeđúonęęęký	ngeđúobekánku	ngeđúoskánku
	2	ngeđúonenęéki	ngeđúonęęęki	ngeđúobekánke	ngeđúoskánke
	3n.	ngeđúonenęékým	ngeđúonęęękým	ngeđúobekánkum	ngeđúoskánkum
	3m.	ngeđúonenęékim	ngeđúonęęękim	ngeđúobekánkam	ngeđúoskánkam
Dual	1+2	ngeđúomenenęekim	ngeđúomenęęękim	ngeđúomambekánkám	ngeđúomanskánkám
	1	ngeđúukenenęéký	ngeđúukenęęęký	ngeđúukebekánku	ngeđúukeskánku
	2	ngeđúukenenęéki	ngeđúukenęęęki	ngeđúukebekánke	ngeđúukeskánke
	3n.	ngeđúukenenęékým	ngeđúukenęęękým	ngeđúukebekánkum	ngeđúukeskánkum
Plur.	3m.	ngeđúukenenęékim	ngeđúukenęęękim	ngeđúukebekánkam	ngeđúukeskánkam
	1+2	ngeđúukenenęekim	ngeđúukenęęękim	ngeđúukebekánkám	ngeđúukeskánkám
	1	ngeđóinięéký	ngeđóinęęęký	ngeđóibekánku	ngeđóiskánku
	3	ngeđóinięékim	ngeđóinęęękim	ngeđóibekánkam	ngeđóiskánkam

(IV) UNSPECIFIED OBJECT — ITERATIVE

	13 th Pos.	14 th Pos.	15 th Pos.	16 th Pos.
Present				
Sing. 1	ngedúobenengátu	ngedúosenengátu	ngedúokenengéty	ngedúosenengéty
2	ngedúobenengáte	ngedúosenengáte	ngedúokenengéti	ngedúosenengéti
3n.	ngedúobenengátum	ngedúosenengátum	ngedúokenengétym	ngedúosenengétym
3m.	ngedúobenengátam	ngedúosenengátam	ngedúokenengétim	ngedúosenengétim
1+2	ngedúomambenengátám	ngedúomansenengátám	ngedúomakenengétím	ngedúomensenengétím
Dual 1	ngedóukebenengátu	ngedóukesenengátu	ngedóukekenengéty	ngedóukesenengéty
2	ngedóukebenengáte	ngedóukesenengáte	ngedóukekenengéti	ngedóukesenengéti
3n.	ngedóukebenengátum	ngedóukesenengátum	ngedóukekenengétym	ngedóukesenengétym
3m.	ngedóukebenengátam	ngedóukesenengátam	ngedóukekenengétim	ngedóukesenengétim
1+2	ngedóukebenengátám	ngedóukesenengátám	ngedóukekenengétím	ngedóukesenengétím
Plur. 1	ngedóúibenengátu	ngedóúisenengátu	ngedóúikenengéty	ngedóúisenengéty
3	ngedóúibenengátam	ngedóúisenengátam	ngedóúikenengétim	ngedóúisenengétim

Recent Past

Sing. 1				
2				
3n.	Same	Same	Same	Same
3m.				
1+2				
Dual 1	as	as	as	as
2				
3n.				
3m.				
1+2				
Plur. 1	Present	Present	Present	Present
3				

Past

Sing.	1	ngedúobenengáku	ngedúosenengáku	ngedúokenengéky	ngedúosenengéky
	2	ngedúobenengáke	ngedúosenengáke	ngedúokenengéki	ngedúosenengéki
	3n.	ngedúobenengákum	ngedúosenengákum	ngedúokenengékym	ngedúosenengékym
	3m.	ngedúobenengákam	ngedúosenengákam	ngedúokenengékim	ngedúosenengékim
Dual	1+2	ngedúomambenengákám	ngedúomansenengákám	ngedúomemkenengékím	ngedúomensenengékím
	1	ngedóukebenengáku	ngedóukesenengáku	ngedóukekenengéky	ngedóukesenengéky
	2	ngedóukebenengáke	ngedóukesenengáke	ngedóukekenengéki	ngedóukesenengéki
	3n.	ngedóukebenengákum	ngedóukesenengákum	ngedóukekenengékym	ngedóukesenengékym
Plur.	3m.	ngedóukebenengákam	ngedóukesenengákam	ngedóukekenengékím	ngedóukesenengékím
	1+2	ngedóukebenengákám	ngedóukesenengákám	ngedóukekenengékím	ngedóukesenengékím
	1	ngedóibenengáku	ngedóisienengáku	ngedóíikenengéky	ngedóíisenengéky
	3	ngedóibenengákam	ngedóisienengákam	ngedóíikenengékím	ngedóíisenengékím

(1) **MASCULINE OBJECT — MOMENTARY**

Future	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Sing. 1	ngedúoráru	ngedúorebáru	ngedúoreñáru	ngedúioresáru
2	ngedúoráre	ngedúorebáre	ngedúoreñáre	ngedúioresáre
3n.	ngedúorárum	ngedúorebárum	ngedúoreñárum	ngedúioresárum
3m.	ngedúoráram	ngedúorebáram	ngedúoreñáram	ngedúioresáram
1+2	ngedúoremándám	ngedúoremambám	ngedúoremamñám	ngedúoremansarám
Dual 1	ngedóukráru	ngedóukrebáru	ngedóukreñáru	ngedóoukresáru
2	ngedóukráre	ngedóukrebáre	ngedóukreñáre	ngedóoukresáre
3n.	ngedóukrárum	ngedóukrebárum	ngedóukreñárum	ngedóoukresárum
3m.	ngedóukráram	ngedóukrebáram	ngedóukreñáram	ngedóoukresáram
1+2	ngedóukráram	ngedóukrebáram	ngedóukreñáram	ngedóoukresáram
Plur. 1	ngedóoiráru	ngedóoirebáru	ngedóoireñáru	ngedóoukresáru
3	ngedóoiráram	ngedóoirebáram	ngedóoireñáram	ngedóoukresáram
Present				
Sing. 1	ngedúorátu	ngedúorebáu	ngedúorekenjáru	ngedúioresáu
2	ngedúoráte	ngedúorebáe	ngedúorekenjáe	ngedúioresáe
3n.	ngedúorátum	ngedúorebóm	ngedúorekenjóm	ngedúioresóm
3m.	ngedúorátam	ngedúorebám	ngedúorekenjám	ngedúioresám
1+2	ngedúoremantám	ngedúoremambám	ngedúoremamkenjám	ngedúoremansám
Dual 1	ngedóukrátu	ngedóukrebáu	ngedóukrekenjáru	ngedóoukresáu
2	ngedóukráte	ngedóukrebáe	ngedóukrekenjáe	ngedóoukresáe
3n.	ngedóukrátum	ngedóukrebóm	ngedóukrekenjóm	ngedóoukresóm
3m.	ngedóukrátam	ngedóukrebám	ngedóukrekenjám	ngedóoukresám
1+2	ngedóukratám	ngedóukrebám	ngedóukrekenjám	ngedóoukresám
Plur. 1	ngedóoirátu	ngedóoirebáu	ngedóoirekenjáru	ngedóoukresáu
3	ngedóoirátam	ngedóoirebám	ngedóoirekenjám	ngedóoukresám

Recent Past

Sing. 1	ngedúorápu		
2	ngedúorápe		
3n.	ngedúorápum	Same	Same
3m.	ngedúorápam		
1+2	ngedúoremampám		
Dual 1	ngedóukrápu		
2	ngedóukrápe	as	as
3n.	ngedóuprápum		
3m.	ngedóukrapám		
1+2	ngedóukrapám		
Plur. 1	ngedóirápu		
3	ngedóirápam	Present	Present

Past

Sing. 1	ngedúoráku			
2	ngedúoráke			
3n.	ngedúorákum	ngedúoreñáku	ngedúoreñáke	ngedúoresáku
3m.	ngedúorákam	ngedúoreñákam	ngedúoreñákam	ngedúoresákum
1+2	ngedúoremankám	ngedúoremankám	ngedúoremankám	ngedúoresákam
Dual 1	ngedóukráku	ngedóukrenáku	ngedóukrenáku	ngedóukresáku
2	ngedóukráke	ngedóukrenáke	ngedóukrenáke	ngedóukresáke
3n.	ngedóukrákum	ngedóukrenákum	ngedóukrenákum	ngedóukresákam
3m.	ngedóukrákam	ngedóukrenákam	ngedóukrenákam	ngedóukresákam
1+2	ngedóukrakám	ngedóukrenákam	ngedóukrenákam	ngedóukresákam
Plur. 1	ngedóiráku	ngedóireñáku	ngedóireñáku	ngedóiresáku
3	ngedóirákam	ngedóireñákam	ngedóireñákam	ngedóiresákam

(II) MASCUINE OBJECT — MOMENTARY

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Future				
Sing. 1	ngedúorenáru	ngedúorebedú	ngedúioresedú	ngedúioresedý
2	ngedúorenáre	ngedúorebedé	ngedúioresedé	ngedúioresedí
3n.	ngedúorenárum	ngedúorebedúm	ngedúioresedúm	ngedúioresedým
3m.	ngedúorenáram	ngedúorebedám	ngedúioresedám	ngedúioresedím
1+2	ngedúoremanarám	ngedúoremambetám	ngedúoremansedám	ngedúoremensedím
Dual 1	ngedókrenáru	ngedókrebédú	ngedókresedú	ngedókresedý
2	ngedókrenáre	ngedókrebédé	ngedókresedé	ngedókresedí
3n.	ngedókrenárum	ngedókrebédúm	ngedókresedúm	ngedókresedým
3m.	ngedókrenáram	ngedókrebédám	ngedókresedám	ngedókresedím
1+2	ngedókrenarám	ngedókrebédám	ngedókresedám	ngedókresedím
Plur. 1	ngedóirenáru	ngedóirebedú	ngedóiresedú	ngedóiresedý
3	ngedóirenáram	ngedóirebedám	ngedóiresedám	ngedóiresedím
Present				
Sing. 1	ngedúorenáu	ngedúorebetú	ngedúioresetú	ngedúioresetý
2	ngedúorenáe	ngedúorebeté	ngedúioreseté	ngedúioreseti
3n.	ngedúorenóm	ngedúorebetúm	ngedúioresetúm	ngedúioresetým
3m.	ngedúorenám	ngedúorebetám	ngedúioresetám	ngedúioresetím
1+2	ngedúoremanám	ngedúoremambetám	ngedúoremansetám	ngedúoremensetím
Dual 1	ngedókrenáu	ngedókrebetú	ngedókresetú	ngedókresetý
2	ngedókrenáe	ngedókrebeté	ngedókreseté	ngedókreseti
3n.	ngedókrenóm	ngedókrebetúm	ngedókresetúm	ngedókresetým
3m.	ngedókrenám	ngedókrebetám	ngedókresetám	ngedókresetím
1+2	ngedókrenám	ngedókrebetám	ngedókresetám	ngedókresetím
Plur. 1	ngedóirenáu	ngedóirebetú	ngedóiresetú	ngedóiresetý
3	ngedóirenám	ngedóirebetám	ngedóiresetám	ngedóiresetím

Recent Past

Sing. 1	ngedúiorebepú	ngedúioresepú	ngedúioresepý
2	ngedúiorebepé	ngedúioresepé	ngedúioresepí
3n.	ngedúiorebepúm	ngedúioresepúm	ngedúioresepým
3m.	ngedúiorebepám	ngedúioresepám	ngedúioresepím
1 + 2	ngedúioremanbepám	ngedúioremansepám	ngedúioremansepím
Dual 1	ngedókrebepú	ngedókresepú	ngedókresepý
2	ngedókrebepé	ngedókresepé	ngedókresepí
3n.	ngedókrebepúm	ngedókresepúm	ngedókresepým
3m.	ngedókrebepám	ngedókresepám	ngedókresepím
1 + 2	ngedókrebepám	ngedoupresepám	ngedókresepím
Plur. 1	ngedóirebepú	ngedóiresepú	ngedóiresepý
3	ngedóirebepám	ngedóiresepám	ngedóiresepím

Past

Sing. 1	ngedúiorenáku	ngedúiorebekú	ngedúioresekú	ngedúioreseký
2	ngedúiorenáke	ngedúiorebeké	ngedúioreseké	ngedúioresekí
3n.	ngedúiorenánum	ngedúiorebekúm	ngedúioresekúm	ngedúioresekým
3m.	ngedúiorenákam	ngedúiorebekám	ngedúioresekám	ngedúioresekím
1 + 2	ngedúiorenanakám	ngedúiorenanbekám	ngedúiorenansekám	ngedúiorenansekím
Dual 1	ngedóukrenáku	ngedóukrebekú	ngedóukresekú	ngedóukreseký
2	ngedóukrenáke	ngedóukrebeké	ngedóukreseké	ngedóukresekí
3n.	ngedóukrenákum	ngedóukrebekúm	ngedóukresekúm	ngedóukresekým
3m.	ngedóukrenákam	ngedóukrebekám	ngedóukresekám	ngedóukresekím
1 + 2	ngedóoukrenakám	ngedóoukrebekám	ngedóoukresekám	ngedóoukresekím
Plur. 1	ngedóourenáku	ngedóourebekú	ngedóouresekú	ngedóoureseký
3	ngedóourenákam	ngedóourebekám	ngedóouresekám	ngedóouresekím

(III) MASCU LINE OBJECT — MOMENTARY

206

	9 th Pos.	10 th Pos.	11 th Pos.	12 th Pos.
Future				
Sing. 1	ngedüorenenéy	ngedüorekenéy	ngedüorebándu	ngedüoresándu
2	ngedüorenenéi	ngedüorekendi	ngedüorebände	ngedüoresände
3n.	ngedüorenenéym	ngedüorekenéym	ngedüorebándum	ngedüoresándum
3m.	ngedüorenenédím	ngedüoremenekéndím	ngedüoremambándám	ngedüoremansándám
1+2	ngedüokrenedéy	ngedóukrekendéy	ngedóukrebándu	ngedóukresándu
Dual 1	ngedóukrenedéi	ngedóukrekendi	ngedóukrebände	ngedóukresände
2	ngedóukrenedéym	ngedóukrekendéym	ngedóukrebándum	ngedóukresándum
3n.	ngedóukrenedéim	ngedóukrekendéim	ngedóukrebándám	ngedóukresándám
3m.	ngedóukrenedédím	ngedóukrekendédím	ngedóukrebándám	ngedóukresándám
1+2	ngedóukrenedéy	ngedóukrekendéy	ngedóukrebándám	ngedóukresándám
Plur. 1	ngedóirenenéy	ngedóirekendéy	ngedóoirebándu	ngedóioresándu
3	ngedóirenenédím	ngedóirekendédím	ngedóoirebándám	ngedóioresándám

Present				
Sing. 1	ngedüorenenéy	ngedüorekenéy	ngedüorebántu	ngedüoresántu
2	ngedüorenenéi	ngedüorekenti	ngedüorebante	ngedüoresante
3n.	ngedüorenenéym	ngedüorekenéym	ngedüorebántum	ngedüoresántum
3m.	ngedüorenenétím	ngedüorekenétím	ngedüorebántám	ngedüoresántám
1+2	ngedüorenenétím	ngedüoremenekéntím	ngedüoremambántám	ngedüoremansántám
Dual 1	ngedóukrenetéy	ngedóukrekentéy	ngedóukrebántu	ngedóukresántu
2	ngedóukrenetéi	ngedóukrekenti	ngedóukrebante	ngedóukresante
3n.	ngedóukrenetéym	ngedóukrekentéym	ngedóukrebántum	ngedóukresántum
3m.	ngedóukrenetédím	ngedóukrekentédím	ngedóukrebántám	ngedóukresántám
1+2	ngedóukrenetédím	ngedóukrekentédím	ngedóukrebántám	ngedóukresántám
Plur. 1	ngedóirenenéy	ngedóirekentéy	ngedóoirebántu	ngedóioresántu
3	ngedóirenenétím	ngedóirekentédím	ngedóoirebántám	ngedóioresántám

Recent Past

Sing.	1	ngedúorenepý	ngedúorekenpý	ngedúorebámpu	ngedúoresámpu
	2	ngedúorenepí	ngedúorekempí	ngedúorebámpe	ngedúoresámpe
	3n.	ngedúorenepým	ngedúorekempým	ngedúorebámpum	ngedúoresámpum
	3m.	ngedúorenepím	ngedúorekempím	ngedúorebámpam	ngedúoresámpam
1+2		ngedúorenepím	ngedúorekempím	ngedúorenambámpám	ngedúoremansámpám
Dual	1	ngedóukrenepý	ngedóukrekempý	ngedóukrebámpu	ngedóukresámpu
	2	ngedóukrenepí	ngedóukrekempí	ngedóukrebámpe	ngedóukresámpe
	3n.	ngedóukrenepým	ngedóukrekempým	ngedóukrebámpum	ngedóukresámpum
	3m.	ngedóukrenepím	ngedóukrekempím	ngedóukrebámpam	ngedóukresámpam
1+2		ngedóukrenepím	ngedóukrekempím	ngedóukrebámpám	ngedóukresámpám
Plur.	1	ngedóirenepý	ngedóirekempý	ngedóirebámpu	ngedóiresámpu
	3	ngedóirenepím	ngedóirekempím	ngedóirebámpam	ngedóiresámpam

Past

Sing.	1	ngedúorenéký	ngedúorekenký	ngedúorebáñku	ngedúoresáñku
	2	ngedúorenekí	ngedúorekenkí	ngedúorebáñke	ngedúoresáñke
	3n.	ngedúorenekým	ngedúorekenkým	ngedúorebáñkum	ngedúoresáñkum
	3m.	ngedúorenekím	ngedúorekenkím	ngedúorebáñkam	ngedúoresáñkam
1+2		ngedúorenekím	ngedúorekenkím	ngedúoremambáñkám	ngedúoremansáñkám
Dual	1	ngedóukrenéký	ngedóukrekenký	ngedóukrebáñku	ngedóukresáñku
	2	ngedóukrenekí	ngedóukrekenkí	ngedóukrebáñke	ngedóukresáñke
	3n.	ngedóukrenekým	ngedóukrekenkým	ngedóukrebáñkum	ngedóukresáñkum
	3m.	ngedóukrenekím	ngedóukrekenkím	ngedóukrebáñkam	ngedóukresáñkam
1+2		ngedóukrenekím	ngedóukrekenkím	ngedóukrebáñkám	ngedóukresáñkám
Plur.	1	ngedóirenéký	ngedóirekenký	ngedóirebáñku	ngedóiresáñku
	3	ngedóirenekím	ngedóirekenkím	ngedóirebáñkam	ngedóiresáñkam

	13 th Pos.	14 th Pos.	15 th Pos.	16 th Pos.
Future				
Sing. 1	ngedüiorebenáru	ngedüioresenáru	ngedüiorekenéry	ngedüioresenéry
2	ngedüiorebenáre	ngedüioresenáre	ngedüiorekenéri	ngedüioresenéri
3n.	ngedüiorebenárum	ngedüioresenárum	ngedüiorekenérym	ngedüioresenérym
3m.	ngedüioremanáram	ngedüioresenáram	ngedüiorekenérím	ngedüioresenérím
1+2	ngedüioremanáram	ngedüioresenáram	ngedüioremenkenérím	ngedüoremensenérím
Dual 1	ngedóukrebenáru	ngedóukresenáru	ngedóukrekenéry	ngedóukresenéry
2	ngedóukrebenáre	ngedóukresenáre	ngedóukrekenéri	ngedóukresenéri
3n.	ngedóukrebenárum	ngedóukresenárum	ngedóukrekenérym	ngedóukresenérym
3m.	ngedóukrebenáram	ngedóukresenáram	ngedóukrekenérím	ngedóukresenérím
1+2	ngedóukrebenáram	ngedóukresenáram	ngedóukrekenérím	ngedóukresenérím
Plur. 1	ngedóoirebenáru	ngedóioresenáru	ngedóoirekenéry	ngedóioresenéry
3	ngedóoirebenáram	ngedóioresenáram	ngedóoirekenérím	ngedóioresenérím
Present				
Sing. 1	ngedüiorebenanáu	ngedüioresenanáu	ngedüiorekenenény	ngedüioresenenény
2	ngedüiorebenanáe	ngedüioresenanáe	ngedüiorekenenéri	ngedüioresenenéri
3n.	ngedüiorebenanóm	ngedüioresenanóm	ngedüiorekenenérym	ngedüioresenenérym
3m.	ngedüioremanánám	ngedüioresenanánám	ngedüiorekenenérím	ngedüioresenenénám
1+2	ngedüioremanánám	ngedüioresenanánám	ngedüioremenkenenénám	ngedüoremensenénám
Dual 1	ngedóukrebenanáu	ngedóukresenanáu	ngedóukrekenenény	ngedóukresenenény
2	ngedóukrebenanáe	ngedóukresenanáe	ngedóukrekenenéri	ngedóukresenenéri
3n.	ngedóukrebenanóm	ngedóukresenanóm	ngedóukrekenenérym	ngedóukresenenérym
3m.	ngedóukrebenánám	ngedóukresenanánám	ngedóukrekenenérím	ngedóukresenenénám
1+2	ngedóukrebenánám	ngedóukresenanánám	ngedóukrekenenérím	ngedóukresenenénám
Plur. 1	ngedóoirebenanáu	ngedóioresenanáu	ngedóoirekenenény	ngedóioresenenény
3	ngedóoirebenánám	ngedóioresenanánám	ngedóoirekenenénám	ngedóioresenenénám

Recent Past

Sing. 1			
2			
3n.			
3m.			
1+2			
Dual 1			
2			
3n.			
3m.			
1+2			
Plur. 1			
3			

Same

Same

Same

Same

as

as

as

as

*Present**Present**Present**Present***Past**

Sing. 1			
2			
3n.			
3m.			
1+2			
Dual 1			
2			
3n.			
3m.			
1+2			
Plur. 1			
3			

ngedúoresenéký

ngedúorekenéký

ngedúoresenáku

ngedúorebenáku

ngedúoresenéki

ngedúorekenéki

ngedúoresenáke

ngedúorebenáke

ngedúoresenékým

ngedúorekenékým

ngedúoresenáakum

ngedúorebenáakum

ngedúoresenékím

ngedúoremenjenekím

ngedúoremansenakám

ngedúoremambenakám

ngedóukresenéký

ngedóukresenéký

ngedóukresenáku

ngedóukrebenáku

ngedóukresenéki

ngedóukrekenéki

ngedóukresenáke

ngedóukrebenáke

ngedóukresenékým

ngedóukrekenékým

ngedóukresenáakum

ngedóukrebenáakum

ngedóukresenékím

ngedóukrekenékím

ngedóukresenakám

ngedóukrebenakám

ngedóioresenéký

ngedóiorekenéký

ngedóioresenáku

ngedóiorebenáku

ngedóioresenékím

ngedóiorekenékím

ngedóioresenakám

ngedóiorebenakám

ngedóioresenéký

ngedóioresenékým

ngedóioresenákum

ngedóioresenákum

(1) **MASCULINE OBJECT — ITERATIVE**

210

	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Present				
Sing. 1	ngedüorekátu	ngedüorebekátu	ngedüorengátu	ngedüoreskátu
2	ngedüorekâte	ngedüorebekâte	ngedüorengâte	ngedüoreskâte
3n.	ngedüorekátum	ngedüorebekátum	ngedüorengátum	ngedüoreskátum
3m.	ngedüorekátam	ngedüorebekátam	ngedüorengátam	ngedüoreskátam
1+2	ngedüoremanʔkatám	ngedüoremanbekatám	ngedüoremanʔgatám	ngedüoremanskatám
Dual 1	ngedóukrekátu	ngedóukrebekátu	ngedóukrengátu	ngedóukreskátu
2	ngedóukrekâte	ngedóukrebekâte	ngedóukrengâte	ngedóukreskâte
3n.	ngedóukrekátum	ngedóukrebekátum	ngedóukrengátum	ngedóukreskátum
3m.	ngedóukrekátam	ngedóukrebekátam	ngedóukrengátam	ngedóukreskátam
1+2	ngedóukrekátám	ngedóukrebekátám	ngedóukrengátám	ngedóukreskátám
Plur. 1	ngedóoirekátu	ngedóoirebekátu	ngedóoirengátu	ngedóoireskátu
3	ngedóoirekátam	ngedóoirebekátam	ngedóoirengátam	ngedóoireskátam

	<i>Same</i>	<i>Same</i>	<i>Same</i>
Recent Past			
Sing. 1	ngedüiorekápu		
2	ngedüioreképe		
3n.	ngedüiorekápum		
3m.	ngedüiorekápam		
1+2	ngedüioremanʔkapám		
Dual 1	ngedóukrekápu		
2	ngedóukreképe		
3n.	ngedóukrekápum		
3m.	ngedóukrekápam		
1+2	ngedóukrekápám		
Plur. 1	ngedóoirekápu		
3	ngedóoirekápam		

Same

as

Present

Present

Past

Sing.	1	ngedúorekákú	ngedúorengákú	ngedúoreskákú
	2	ngedúorekáke	ngedúorengáke	ngedúoreskáke
	3n.	ngedúorekákum	ngedúorengákum	ngedúoreskákum
	3m.	ngedúorekákam	ngedúorengákam	ngedúoreskákam
	1+2	ngedúoremangakám	ngedúoremangakám	ngedúoremanskakám
Dual	1	ngedóukrekákú	ngedóukrengákú	ngedóukreskákú
	2	ngedóukrekáke	ngedóukrengáke	ngedóukreskáke
	3n.	ngedóukrekákum	ngedóukrengákum	ngedóukreskákum
	3m.	ngedóukrekákam	ngedóukrengákam	ngedóukreskákam
	1+2	ngedóukrekakám	ngedóukrengakám	ngedóukreskakám
Plur.	1	ngedóirekákú	ngedóirengákú	ngedóioreskákú
	3	ngedóirekákam	ngedóirengákam	ngedóioreskákam

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Present				
Sing. 1	ngedúorenengátu	ngedúorebekátu	ngedúoreskátu	ngedúoreskétý
2	ngedúorenengáte	ngedúorebekáte	ngedúoreskáte	ngedúoreskėti
3n.	ngedúorenengátum	ngedúorebekátum	ngedúoreskátum	ngedúoreskétým
3m.	ngedúorenengátam	ngedúorebekátam	ngedúoreskátam	ngedúoreskétím
1+2	ngedúoremanengátám	ngedúoremambekátám	ngedúoremanskátám	ngedúoremenskétím
Dual 1	ngedókrenengátu	ngedókrebekátu	ngedókreskátu	ngedókreskétý
2	ngedókrenengáte	ngedókrebekáte	ngedókreskáte	ngedókreskėti
3n.	ngedókrenengátum	ngedókrebekátum	ngedókreskátum	ngedókreskétým
3m.	ngedókrenengátam	ngedókrebekátam	ngedókreskátam	ngedókreskétím
1+2	ngedókrenengátám	ngedókrebekátám	ngedókreskátám	ngedókreskétím
Plur. 1	ngedóirenengátu	ngedóirebekátu	ngedóireskátu	ngedóireskétý
3	ngedóirenengátam	ngedóirebekátam	ngedóireskátam	ngedóireskétím
Recent Past				
Sing. 1		ngedúorebekápu	ngedúoreskápu	ngedúoresképy
2		ngedúorebekápe	ngedúoreskápe	ngedúoresképi
3n.		ngedúorebekápum	ngedúoreskápum	ngedúoresképým
3m.		ngedúorebekápam	ngedúoreskápam	ngedúoresképím
1+2		ngedúoremambekápám	ngedúoremanskápám	ngedúoremensképím
Dual 1	<i>as</i>	ngedókrebekápu	ngedókreskápu	ngedókresképy
2		ngedókrebekápe	ngedókreskápe	ngedókresképi
3n.		ngedókrebekápum	ngedókreskápum	ngedókresképým
3m.		ngedókrebekápam	ngedókreskápam	ngedókresképím
1+2		ngedókrebekápám	ngedókreskápám	ngedókresképím
Plur. 1		ngedóirebekápu	ngedóireskápu	ngedóiresképy
3		ngedóirebekápam	ngedóireskápam	ngedóiresképím

Past

Sing.	1	ngedúorenengáku	ngedúorebekáku	ngedúoreskáku	ngedúoreskéky
	2	ngedúorenengáke	ngedúorebekáke	ngedúoreskáke	ngedúoreskéki
	3n.	ngedúorenengákum	ngedúorebekákum	ngedúoreskákum	ngedúoreskékym
	3m.	ngedúorenengákam	ngedúorebekákam	ngedúoreskákam	ngedúoreskékim
Dual	1+2	ngedúoremanengákám	ngedúoremanbekákám	ngedúoremanaskákám	ngedúoremenskekím
	1	ngedókrenengáku	ngedókrebekáku	ngedókreskáku	ngedókreskéky
	2	ngedókrenengáke	ngedókrebekáke	ngedókreskáke	ngedókreskéki
	3n.	ngedókrenengákum	ngedókrebekákum	ngedókreskákum	ngedókreskékym
Plur.	3m.	ngedókrenengákam	ngedókrebekákam	ngedókreskákam	ngedókreskékim
	1+2	ngedókrenengákám	ngedókrebekákám	ngedókreskákám	ngedókreskekím
	1	ngedóirenengáku	ngedóirebekáku	ngedóireskáku	ngedóireskéky
	3	ngedóirenengákam	ngedóirebekákam	ngedóireskákam	ngedóireskékim

(III) **MASCULINE OBJECT — ITERATIVE**

214

	<i>9th Pos.</i>	<i>10th Pos.</i>	<i>11th Pos.</i>	<i>12th Pos.</i>
Present				
Sing. 1	ngedüorenengetý	ngedüorengetý	ngedüorebekántu	ngedüoreskántu
2	ngedüorenengetí	ngedüorengetí	ngedüorebekánte	ngedüoreskánte
3n.	ngedüorenengetým	ngedüorengetým	ngedüorebekántum	ngedüoreskántum
3m.	ngedüorenengetím	ngedüorengetím	ngedüorebekántam	ngedüoreskántam
1+2	ngedüoremenengetím	ngedüoremengentím	ngedüoremambekántam	ngedüoremanskántam
Dual 1	ngedóukrenengetý	ngedóukrengetý	ngedóukrebekántu	ngedóukreskántu
2	ngedóukrenengetí	ngedóukrengetí	ngedóukrebekánte	ngedóukreskánte
3n.	ngedóukrenengetým	ngedóukrengetým	ngedóukrebekántum	ngedóukreskántum
3m.	ngedóukrenengetím	ngedóukrengetím	ngedóukrebekántam	ngedóukreskántam
1+2	ngedóukrenengetím	ngedóukrengetím	ngedóukrebekántam	ngedóukreskántam
Plur. 1	ngedóirenengetý	ngedóoirengetý	ngedóirebekántu	ngedóioreskántu
3	ngedóirenengetím	ngedóoirengetím	ngedóirebekántam	ngedóioreskántam

Recent Past				
Sing. 1	ngedüorenengetý	ngedüorengetý	ngedüorebekámpu	ngedüoreskámpu
2	ngedüorenengetí	ngedüorengetí	ngedüorebekákámpu	ngedüoreskámpu
3n.	ngedüorenengetým	ngedüorengetým	ngedüorebekákámpum	ngedüoreskámpum
3m.	ngedüorenengetím	ngedüorengetím	ngedüorebekákámpam	ngedüoreskámpam
1+2	ngedüoremenengetím	ngedüoremengempím	ngedüoremambekámpám	ngedüoremanskámpám
Dual 1	ngedóukrenengetý	ngedóukrengetý	ngedóukrebekámpu	ngedóukreskámpu
2	ngedóukrenengetí	ngedóukrengetí	ngedóukrebekákámpu	ngedóukreskámpu
3n.	ngedóukrenengetým	ngedóukrengetým	ngedóukrebekákámpum	ngedóukreskámpum
3m.	ngedóukrenengetím	ngedóukrengetím	ngedóukrebekákámpam	ngedóukreskámpam
1+2	ngedóukrenengetím	ngedóukrengetím	ngedóukrebekákámpam	ngedóukreskámpam
Plur. 1	ngedóirenengetý	ngedóoirengetý	ngedóirebekákámpu	ngedóioreskámpu
3	ngedóirenengetím	ngedóoirengetím	ngedóirebekákámpam	ngedóioreskámpam

Past

Sing.	1	ngedúorenengéký	ngedúorenengenki	ngedúorenbekánku	ngedúoreskánku
	2	ngedúorenengéki	ngedúorenengékým	ngedúorenbekánke	ngedúoreskánke
	3n.	ngedúorenengékým	ngedúorenengénkim	ngedúorenbekánkum	ngedúoreskánkum
	3m.	ngedúorenengékím	ngedúorenengénkim	ngedúorenbekánkam	ngedúoreskánkam
Dual	1+2	ngedúorenenengékím	ngedúorenenengékým	ngedúorenenambekánkám	ngedúorenenanskánkám
	1	ngedóukrenengéký	ngedóukrenengéký	ngedóukrebekánku	ngedóukreskánku
	2	ngedóukrenengéki	ngedóukrenengéki	ngedóukrebekánke	ngedóukreskánke
	3n.	ngedóukrenengékým	ngedóukrenengékým	ngedóukrebekánkum	ngedóukreskánkum
Plur.	3m.	ngedóukrenengékím	ngedóukrenengékím	ngedóukrebekánkam	ngedóukreskánkam
	1+2	ngedóukrenengékím	ngedóukrenengékím	ngedóukrebekánkám	ngedóukreskánkám
	1	ngedóirenenengéký	ngedóirenenengéký	ngedóirenbekánku	ngedóireskánku
	3	ngedóirenenengékím	ngedóirenenengékím	ngedóirenbekánkam	ngedóireskánkam

(IV) MASCULINE OBJECT — ITERATIVE

216

Present

	13 th Pos.	14 th Pos.	15 th Pos.	16 th Pos.
Sing. 1	ngedüorebenengátu	ngedüoresenengátu	ngedüorekenengéty	ngedüoresenengéty
2	ngedüorebenengáte	ngedüoresenengáte	ngedüorekenengéti	ngedüoresenengéti
3n.	ngedüorebenengátum	ngedüoresenengátum	ngedüorekenengétym	ngedüoresenengétym
3m.	ngedüorebenengátam	ngedüoresenengátam	ngedüorekenengétim	ngedüoresenengétim
1+2	ngedüoremambenengátam	ngedüoremansenengátam	ngedüoremeykenengétim	ngedüoremensenengétim
Dual 1	ngedóukrebenengátu	ngedóukresenengátu	ngedóukrekenengéty	ngedóukresenengéty
2	ngedóukrebenengáte	ngedóukresenengáte	ngedóukrekenengéti	ngedóukresenengéti
3n.	ngedóukrebenengátum	ngedóukresenengátum	ngedóukrekenengétym	ngedóukresenengétym
3m.	ngedóukrebenengátam	ngedóukresenengátam	ngedóukrekenengétim	ngedóukresenengétim
1+2	ngedóukrebenengátam	ngedóukresenengátam	ngedóukrekenengétim	ngedóukresenengétim
Plur. 1	ngedóoirebenengátu	ngedóoukresenengátu	ngedóoukrekengéty	ngedóoukresenengéty
3	ngedóoirebenengátam	ngedóoukresenengátam	ngedóoukrekengéti	ngedóoukresenengéti

Recent Past

	Same	Same	Same	Same
Sing. 1				
2				
3n.				
3m.				
1+2				
Dual 1	as	as	as	as
2				
3n.				
3m.				
1+2				
Plur. 1	Present	Present	Present	Present
3				

Past

Sing.	1	ngedúorebenengáku	ngedúoresenenngákam	ngedúorekenengéký	ngedúoresenenngékým
	2	ngedúorebenengáke	ngedúoresenenngáke	ngedúorekenengéki	ngedúoresenenngéki
	3n.	ngedúorebenengákum	ngedúoresenenngákum	ngedúorekenengékým	ngedúoresenenngékým
	3m.	ngedúorebenengákam	ngedúoresenenngákam	ngedúorekenengékím	ngedúoresenenngékím
Dual	1+2	ngedúoremambenengákám	ngedúoremansenenngákám	ngedúoremekenenngékím	ngedúoremensenenngékím
	1	ngedókrebeneengáku	ngedókukresenenngáku	ngedókukrekenengéký	ngedókukresenenngéký
	2	ngedókrebeneengáke	ngedókukresenenngáke	ngedókukrekenengéki	ngedókukresenenngéki
	3n.	ngedókrebeneengákum	ngedókukresenenngákum	ngedókukrekenengékým	ngedókukresenenngékým
Plur.	3m.	ngedókrebeneengákam	ngedókukresenenngákam	ngedókukrekenengékím	ngedókukresenenngékím
	1+2	ngedókrebeneengákám	ngedókukresenenngákám	ngedókukrekenengékím	ngedókukresenenngékím
	1	ngedóirebeneengáku	ngedóiresenenngáku	ngedóirekenengéký	ngedóiresenenngéký
	3	ngedóirebeneengákam	ngedóiresenenngákam	ngedóirekenengékím	ngedóiresenenngékím

(1) **PLURAL OBJECT — MOMENTARY**

		<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Future	Sing.				
	1	ngedóudáru	ngedóudebáru	ngedóudenjáru	ngedóudesáru
	2	ngedóudáre	ngedóudebáre	ngedóudenjáre	ngedóudesáre
	3n.	ngedóudárum	ngedóudebárum	ngedóudenjárum	ngedóudesárum
	3m.	ngedóudáram	ngedóudebáram	ngedóudenjáram	ngedóudesáram
Non-Sing.	1+2	ngedóudemandám	ngedóudemambám	ngedóudemamjáram	ngedóudemansarám
	1	ngedóidiáru	ngedóidiebáru	ngedóidienjáru	ngedóidiesáru
	2	ngedóidiáre	ngedóidiebáre	ngedóidienjáre	ngedóidiesáre
	3n.	ngedóidiárum	ngedóidiebárum	ngedóidienjárum	ngedóidiesárum
	3m.	ngedóidiáram	ngedóidiebáram	ngedóidienjáram	ngedóidiesáram
	1+2	ngedóidiarám	ngedóidiebarám	ngedóidienjáram	ngedóidiesarám

Present	Sing.				
	1	ngedóudátu	ngedóudebáu	ngedóoudekenjáu	ngedóoudesáu
	2	ngedóudáte	ngedóudebáe	ngedóoudekenjáe	ngedóoudesáe
	3n.	ngedóudátum	ngedóoudebóm	ngedóoudekenjóm	ngedóoudesóm
	3m.	ngedóudátam	ngedóoudebám	ngedóoudekenjám	ngedóoudesám
Non-Sing.	1+2	ngedóoudemantám	ngedóoudemambám	ngedóoudemamkenjáram	ngedóoudemansám
	1	ngedóidiátu	ngedóidiebáu	ngedóoidiekenjáu	ngedóoidiesáu
	2	ngedóidiáte	ngedóidiebáe	ngedóoidiekenjáe	ngedóoidiesáe
	3n.	ngedóidiátum	ngedóidiebóm	ngedóoidiekenjóm	ngedóoidiesóm
	3m.	ngedóidiátam	ngedóidiebám	ngedóoidiekenjám	ngedóoidiesám
	1+2	ngedóidiátám	ngedóidiebám	ngedóoidiekenjám	ngedóoidiesám

Recent Past

Sing.	1	ngedóudápu	Same	Same
	2	ngedóudápe		
	3n.	ngedóudápum		
	3m.	ngedóudápam		
Non-Sing.	1+2	ngedóudemampám	as	as
	1	ngedóidiápu		
	2	ngedóidiápe		
	3n.	ngedóidiápum		
3m.	ngedóidiápam	Present	Present	Present
	1+2	ngedóidiápám		

Past

Sing.	1	ngedóudáku	ngedóudebáku	ngedóoudenjáku	ngedóoudesáku
	2	ngedóudáke			
	3n.	ngedóudákum			
	3m.	ngedóudákam			
Non-Sing.	1+2	ngedóudemanykám	ngedóudemambakám	ngedóudemanyakám	ngedóudemansakám
	1	ngedóidiáku			
	2	ngedóidiáke			
	3n.	ngedóidiákum			
3m.	ngedóidiákam	ngedóidiebáku	ngedóidiebáke	ngedóidienjáke	ngedóidiesáke
	1+2	ngedóidiakám			
		ngedóidiebakám	ngedóidiebakám	ngedóidienjakám	ngedóidiesakám

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Future				
Sing.	1 2 3n. 3m.	ngedóudenáru ngedóudenáre ngedóudenárum ngedóudenáram	ngedóudesedú ngedóudesedé ngedóudesedúm ngedóudesedám	ngedóudesedý ngedóudesedí ngedóudesedým ngedóudesedím
Non-Sing.	1 2 3n. 3m. 1+2	ngedóudemanáram ngedóidienáru ngedóidienáre ngedóidienárum ngedóidienáram ngedóidienáram	ngedóudemansedám ngedóidiesedú ngedóidiesedé ngedóidiesedúm ngedóidiesedám ngedóidiesedám	ngedóudemansedím ngedóidiesedý ngedóidiesedí ngedóidiesedým ngedóidiesedím ngedóidiesedím
Present				
Sing.	1 2 3n. 3m.	ngedóudenáu ngedóudenáe ngedóudenóm ngedóudenám	ngedóudesetú ngedóudeseté ngedóudesetúm ngedóudesetám	ngedóudesetý ngedóudesetí ngedóudesetým ngedóudesetím
Non-Sing.	1 2 3n. 3m. 1+2	ngedóudemanáram ngedóidienáu ngedóidienáe ngedóidienóm ngedóidienám ngedóidienám	ngedóudemansetám ngedóidiesetú ngedóidieseté ngedóidiesetúm ngedóidiesetám ngedóidiesetám	ngedóudemansetím ngedóidiesetý ngedóidiesetí ngedóidiesetým ngedóidiesetím ngedóidiesetím

Recent Past

Sing.	1	<i>Same</i>	ngedóudebepú	ngedóudesepú	ngedóudesepý
	2		ngedóudebepé	ngedóudesepé	ngedóudesepí
	3n.		ngedóudebepúm	ngedóudesepúm	ngedóudesepým
	3m.		ngedóudebepám	ngedóudesepám	ngedóudesepím
Non-Sing.	1+2	<i>as</i>	ngedóudemambepám	ngedóudemansépám	ngedóudemensepím
	1		ngedóidiebepú	ngedóidiesepú	ngedóidiesepý
	2		ngedóidiebepé	ngedóidiesepé	ngedóidiesepí
	3n.		ngedóidiebepúm	ngedóidiesepúm	ngedóidiesepým
	3m.	<i>Present</i>	ngedóidiebepám	ngedóidiesepám	ngedóidiesepím
	1+2		ngedóidiebepám	ngedóidiesepám	ngedóidiesepím

Past

Sing.	1		ngedóudebekú	ngedóudesekú	ngedóudeseký
	2		ngedóudebeké	ngedóudeseké	ngedóudesekí
	3n.		ngedóudebekúm	ngedóudesekúm	ngedóudesekým
	3m.		ngedóudebekám	ngedóudesekám	ngedóudesekím
Non-Sing.	1+2		ngedóudemambekám	ngedóudemansékám	ngedóudemensekím
	1		ngedóidiebekú	ngedóidiesekú	ngedóidieseký
	2		ngedóidiebeké	ngedóidieseké	ngedóidiesekí
	3n.		ngedóidiebekúm	ngedóidiesekúm	ngedóidiesekým
	3m.		ngedóidiebekám	ngedóidiesekám	ngedóidiesekím
	1+2		ngedóidiebekám	ngedóidiesekám	ngedóidiesekím

9th Pos.10th Pos.11th Pos.12th Pos.**Future**

Sing.	1	ηgedóudeneny	ηgedóudekený	ηgedóudebántu	ηgedóudesántu
	2	ηgedóudeneti	ηgedóudekeni	ηgedóudebánte	ηgedóudesánte
	3n.	ηgedóudenenyým	ηgedóudekenýým	ηgedóudebántum	ηgedóudesántum
	3m.	ηgedóudenedím	ηgedóudekením	ηgedóudebántám	ηgedóudesántám
Non-Sing.	1+2	ηgedóudemenedím	ηgedóudemenekením	ηgedóudemambandám	ηgedóudemansandám
	1	ηgedóidieneny	ηgedóidiekeny	ηgedóidiebántu	ηgedóidiesántu
	2	ηgedóidieneti	ηgedóidiekeni	ηgedóidiebánte	ηgedóidiesánte
	3n.	ηgedóidienenyým	ηgedóidiekenyým	ηgedóidiebántum	ηgedóidiesántum
	3m.	ηgedóidienedím	ηgedóidiekedím	ηgedóidiebántám	ηgedóidiesántám
	1+2	ηgedóidienedím	ηgedóidiekedým	ηgedóidiebántám	ηgedóidiesántám

Present

Sing.	1	ηgedóudeneny	ηgedóudekený	ηgedóudebántu	ηgedóudesántu
	2	ηgedóudeneti	ηgedóudekeni	ηgedóudebánte	ηgedóudesánte
	3n.	ηgedóudenenyým	ηgedóudekenýým	ηgedóudebántum	ηgedóudesántum
	3m.	ηgedóudenetím	ηgedóudekentím	ηgedóudebántám	ηgedóudesántám
Non-Sing.	1+2	ηgedóudemenedím	ηgedóudemenekentím	ηgedóudemambandám	ηgedóudemansantám
	1	ηgedóidieneny	ηgedóidiekeny	ηgedóidiebántu	ηgedóidiesántu
	2	ηgedóidieneti	ηgedóidiekeni	ηgedóidiebánte	ηgedóidiesánte
	3n.	ηgedóidienenyým	ηgedóidiekenyým	ηgedóidiebántum	ηgedóidiesántum
	3m.	ηgedóidienetím	ηgedóidiekentím	ηgedóidiebántám	ηgedóidiesántám
	1+2	ηgedóidienetím	ηgedóidiekentím	ηgedóidiebántám	ηgedóidiesántám

Recent Past

Sing.	1	ngedóudenepý	ngedóudekempý	ngedóudebámpu	ngedóudesámpu
	2	ngedóudenepí	ngedóudekempi	ngedóudebámpe	ngedóudesámpe
	3n.	ngedóudenepým	ngedóudekempým	ngedóudebámpum	ngedóudesámpum
	3m.	ngedóudenepim	ngedóudekempim	ngedóudebámpam	ngedóudesámpam
Non-Sing.	1+2	ngedóudemeneþím	ngedóudemeneþkempim	ngedóudemambampám	ngedóudemansampám
	1	ngedóidenepý	ngedóidekempý	ngedóidebámpu	ngedóidesámpu
	2	ngedóidenepí	ngedóidekempi	ngedóidebámpe	ngedóidesámpe
	3n.	ngedóidenepým	ngedóidekempým	ngedóidebámpum	ngedóidesámpum
	3m.	ngedóidenepim	ngedóidekempim	ngedóidebámpam	ngedóidesámpam
	1+2	ngedóidenepím	ngedóidekempim	ngedóidebampám	ngedóidesampám

Past

Sing.	1	ngedóudeneký	ngedóudekenký	ngedóudebáñku	ngedóudesáñku
	2	ngedóudenekí	ngedóudekenkí	ngedóudebáñke	ngedóudesáñke
	3n.	ngedóudenekým	ngedóudekenkým	ngedóudebáñkum	ngedóudesáñkum
	3m.	ngedóudenekim	ngedóudekenkim	ngedóudebáñkam	ngedóudesáñkam
Non-Sing.	1+2	ngedóudemeneþkím	ngedóudemeneþkenkim	ngedóudemambañkám	ngedóudemansañkám
	1	ngedóideneký	ngedóidekenký	ngedóidebáñku	ngedóidesáñku
	2	ngedóidenekí	ngedóidekenkí	ngedóidebáñke	ngedóidesáñke
	3n.	ngedóidenekým	ngedóidekenkým	ngedóidebáñkum	ngedóidesáñkum
	3m.	ngedóidenekim	ngedóidekenkim	ngedóidebáñkam	ngedóidesáñkam
	1+2	ngedóidenekím	ngedóidekenkim	ngedóidebañkám	ngedóidesañkám

13th Pos.14th Pos.15th Pos.16th Pos.**Future**

Sing.	1	ηgedóudebenáru	ηgedóudesenáru	ηgedóudekenéry	ηgedóudesenény
	2	ηgedóudebenáre	ηgedóudesenáre	ηgedóudekenéri	ηgedóudesenéri
	3n.	ηgedóudebenárum	ηgedóudesenárum	ηgedóudekenérym	ηgedóudesenérym
	3m.	ηgedóudebenáram	ηgedóudesenáram	ηgedóudekenérím	ηgedóudesenérím
Non-Sing.	1+2	ηgedóudemambenarám	ηgedóudemansenáram	ηgedóudemem̃kenérím	ηgedóudemensenerím
	1	ηgedóódiebenáru	ηgedóódiebenáru	ηgedóódiekenéry	ηgedóódieesenény
	2	ηgedóódiebenáre	ηgedóódiebenáre	ηgedóódiekenéri	ηgedóódieesenéri
	3n.	ηgedóódiebenárum	ηgedóódiebenárum	ηgedóódiekenérym	ηgedóódieesenérym
	3m.	ηgedóódiebenáram	ηgedóódiebenáram	ηgedóódiekenérím	ηgedóódieesenérím
	1+2	ηgedóódiebenarám	ηgedóódiebenarám	ηgedóódiekenérím	ηgedóódieesenérím

Present

Sing.	1	ηgedóudebenanáu	ηgedóudesenanáu	ηgedóudekenenény	ηgedóudesenenény
	2	ηgedóudebenanáe	ηgedóudesenanáe	ηgedóudekenenéri	ηgedóudesenenéri
	3n.	ηgedóudebenanóm	ηgedóudesenanóm	ηgedóudekeneným	ηgedóudeseneným
	3m.	ηgedóudebenanám	ηgedóudesenanám	ηgedóudekenenérím	ηgedóudesenenérím
Non-Sing.	1+2	ηgedóudemambenanáam	ηgedóudemansenanám	ηgedóudemem̃keneném	ηgedóudemenseneném
	1	ηgedóódiebenanáu	ηgedóódiebenanáu	ηgedóódiekenenény	ηgedóódieesenenény
	2	ηgedóódiebenanáe	ηgedóódiebenanáe	ηgedóódiekenenéri	ηgedóódieesenenéri
	3n.	ηgedóódiebenanóm	ηgedóódiebenanóm	ηgedóódiekeneným	ηgedóódieeseneným
	3m.	ηgedóódiebenanáam	ηgedóódiebenanáam	ηgedóódiekenenérím	ηgedóódieesenenérím
	1+2	ηgedóódiebenanáam	ηgedóódiebenanáam	ηgedóódiekeneném	ηgedóódieeseneném

Recent Past

Sing.	Same		
	1	2	3n.
Non-Sing.	1	2	3n.
	3n.	3n.	1+2
	1	2	3n.
	3n.	3n.	1+2

Past

Sing.	1	ngedóudebenáku	ngedóudesenáku	ngedóudekenéky	ngedóudesenéký
	2	ngedóudebenáke	ngedóudesenáke	ngedóudekenéki	ngedóudesenékí
	3n.	ngedóudebenákum	ngedóudesenáku	ngedóudekenékym	ngedóudesenékym
	3m.	ngedóudebenákam	ngedóudesenákam	ngedóudekenékim	ngedóudesenékim
Non-Sing.	1+2	ngedóudemambenakám	ngedóudemansenákm	ngedóudemeykenékim	ngedóudemensenekím
	1	ngedóódiebenáku	ngedóódiiesenáku	ngedóódiekenéky	ngedóódiiesenéký
	2	ngedóódiebenáke	ngedóódiiesenáke	ngedóódiekenéki	ngedóódiiesenékí
	3n.	ngedóódiebenákum	ngedóódiiesenákum	ngedóódiekenékym	ngedóódiiesenékym
	3m.	ngedóódiebenákam	ngedóódiiesenákam	ngedóódiekenékim	ngedóódiiesenékim
	1+2	ngedóódiebenákám	ngedóódiiesenákám	ngedóódiekenékim	ngedóódiiesenékím

Same

Same

Same

Same

as

as

as

as

Present

Present

Present

Present

ngedóudeseneky
ngedóudesenēki
ngedóudesenekym
ngedóudesenekim
ngedóudemensenekim
ngedóoidieseneky
ngedóoidiesenēki
ngedóoidiesenekym
ngedóoidiesenekim

ngedóudekeneky
ngedóudekenēki
ngedóudekenekym
ngedóudekenekim
ngedóudemēnkenekim
ngedóoidiekeneky
ngedóoidiekenēki
ngedóoidiekenekym
ngedóoidiekenekim

ngedóudesenáku
ngedóudesenáke
ngedóudesenákum
ngedóudesenákam
ngedóudemansenákám
ngedóoidiesenáku
ngedóoidiesenáke
ngedóoidiesenákum
ngedóoidiesenákam

ngedóudebenáku
ngedóudebenáke
ngedóudebenákum
ngedóudebenákam
ngedóudemambenákám
ngedóoidiebenáku
ngedóoidiebenáke
ngedóoidiebenákum
ngedóoidiebenákam

(I) PLURAL OBJECT — ITERATIVE

	<i>1st Pos.</i>	<i>2nd Pos.</i>	<i>3rd Pos.</i>	<i>4th Pos.</i>
Present				
Sing. 1	ngedóudekátu	ngedóudebekátu	ngedóudengátu	ngedóudeskátu
2	ngedóudekáte	ngedóudebekáte	ngedóudengáte	ngedóudeskáte
3n.	ngedóudekátum	ngedóudebekátum	ngedóudengátum	ngedóudeskátum
3m.	ngedóudekátam	ngedóudebekátam	ngedóudengátam	ngedóudeskátam
1+2	ngedóudemankátám	ngedóudemambekátám	ngedóudemangátám	ngedóudemanskátám
Non-Sing. 1	ngedóoidiekátu	ngedóoidiebekátu	ngedóoidiengátu	ngedóoidieskátu
2	ngedóoidiekáte	ngedóoidiebekáte	ngedóoidiengáte	ngedóoidieskáte
3n.	ngedóoidiekátum	ngedóoidiebekátum	ngedóoidiengátum	ngedóoidieskátum
3m.	ngedóoidiekátam	ngedóoidiebekátam	ngedóoidiengátam	ngedóoidieskátam
1+2	ngedóoidiekátám	ngedóoidiebekátám	ngedóoidiengátám	ngedóoidieskátám

Recent Past				
Sing. 1	ngedóudekápu	Same	Same	Same
2	ngedóudekápe			
3n.	ngedóudekápum			
3m.	ngedóudekápam			
1+2	ngedóudemankápám	as	as	as
Non-Sing. 1	ngedóoidiekápu			
2	ngedóoidiekápe			
3n.	ngedóoidiekápum	Present	Present	Present
3m.	ngedóoidiekápam			
1+2	ngedóoidiekápám			

Past

Sing.	1	ngedóudekákú	ngedóudebekákú	ngedóudenngákú	ngedóudeskákú
	2	ngedóudekáke	ngedóudebekáke	ngedóudenngáke	ngedóudeskáke
	3n.	ngedóudekákum	ngedóudebekákum	ngedóudenngákum	ngedóudeskákum
	3m.	ngedóudekákam	ngedóudebekákam	ngedóudenngákam	ngedóudeskákam
Non-Sing.	1+2	ngedóudemanykakám	ngedóudemambekakám	ngedóudemanygakám	ngedóudemanskakám
	1	ngedóidiekákú	ngedóidiebekákú	ngedóidienngákú	ngedóidieskákú
	2	ngedóidiekáke	ngedóidiebekáke	ngedóidienngáke	ngedóidieskáke
	3n.	ngedóidiekákum	ngedóidiebekákum	ngedóidienngákum	ngedóidieskákum
	3m.	ngedóidiekákam	ngedóidiebekákam	ngedóidienngákam	ngedóidieskákam
	1+2	ngedóidiekakám	ngedóidiebekakám	ngedóidienngakám	ngedóidieskakám

(II)

PLURAL OBJECT — ITERATIVE

228

		5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Present					
Sing.	1	ngedóudenengátu	ngedóudebekátu	ngedóudeskátu	ngedóudeskétý
	2	ngedóudenengáte	ngedóudebekáte	ngedóudeskáte	ngedóudeskétí
	3n.	ngedóudenengátum	ngedóudebekátum	ngedóudeskátum	ngedóudeskétým
	3m.	ngedóudenengátam	ngedóudebekátam	ngedóudeskátam	ngedóudeskétím
Non-Sing.	1+2	ngedóudemangenátám	ngedóudemambekátám	ngedóudemanskátám	ngedóudemenskétím
	1	ngedóoidienengátu	ngedóoidiebekátu	ngedóoidieskátu	ngedóoidieskétý
	2	ngedóoidienengáte	ngedóoidiebekáte	ngedóoidieskáte	ngedóoidieskétí
	3n.	ngedóoidienengátum	ngedóoidiebekátum	ngedóoidieskátum	ngedóoidieskétým
	3m.	ngedóoidienengátam	ngedóoidiebekátam	ngedóoidieskátam	ngedóoidieskétím
	1+2	ngedóoidienengátám	ngedóoidiebekátám	ngedóoidieskátám	ngedóoidieskétím
Recent Past					
Sing.	1		ngedóudebekápu	ngedóudeskápu	ngedóudesképy
	2		ngedóudebekápe	ngedóudeskápe	ngedóudesképi
	3n.	<i>Same</i>	ngedóudebekápum	ngedóudeskápum	ngedóudesképým
	3m.		ngedóudebekápam	ngedóudeskápam	ngedóudesképím
Non-Sing.	1+2	<i>as</i>	ngedóudemambekápám	ngedóudemanskápám	ngedóudemensképím
	1		ngedóoidiebekápu	ngedóoidieskápu	ngedóoidiesképy
	2	<i>Present</i>	ngedóoidiebekápe	ngedóoidieskápe	ngedóoidiesképi
	3n.		ngedóoidiebekápum	ngedóoidieskápum	ngedóoidiesképým
	3m.		ngedóoidiebekápam	ngedóoidieskápam	ngedóoidiesképím
	1+2		ngedóoidiebekápám	ngedóoidieskápám	ngedóoidiesképím

Past

Sing.	1	ngedóudenengáku	ngedóudebekáku	ngedóudeskáku	ngedóudeskéky
	2	ngedóudenengáke	ngedóudebekáke	ngedóudeskáke	ngedóudeskéki
	3n.	ngedóudenengákum	ngedóudebekákum	ngedóudeskákum	ngedóudeskékym
	3m.	ngedóudenengákam	ngedóudebekákam	ngedóudeskákam	ngedóudeskékim
Non-Sing.	1+2	ngedóudemangenakám	ngedóudemambekakám	ngedóudemanskákám	ngedóudemenskekím
	1	ngedóidienengáku	ngedóidiebekáku	ngedóidieskáku	ngedóidieskéky
	2	ngedóidienengáke	ngedóidiebekáke	ngedóidieskáke	ngedóidieskéki
	3n.	ngedóidienengákum	ngedóidiebekákum	ngedóidieskákum	ngedóidieskékym
	3m.	ngedóidienengákam	ngedóidiebekákam	ngedóidieskákam	ngedóidieskékim
	1+2	ngedóidienengakám	ngedóidiebekakám	ngedóidieskakám	ngedóidieskekím

	<i>9th Pos.</i>	<i>10th Pos.</i>	<i>11th Pos.</i>	<i>12th Pos.</i>
Present				
Sing.	1 2 3n. 3m. 1+2	ngedóudenengétý ngedóudenengéti ngedóudenengétým ngedóudenengétim ngedóudemnenengétim	ngedóudenengéntý ngedóudenengénti ngedóudenengéntým ngedóudenengéntim ngedóudemnenengéntim	ngedóudebekántu ngedóudebekánte ngedóudebekántum ngedóudebekántam ngedóudemanskantám
Non-Sing.	1 2 3n. 3m. 1+2	ngedóidienengétý ngedóidienengéti ngedóidienengétým ngedóidienengétim ngedóidienengétim	ngedóidienengéntý ngedóidienengénti ngedóidienengéntým ngedóidienengéntim ngedóidienengéntim	ngedóoidieskántu ngedóoidieskánte ngedóoidieskántum ngedóoidieskántam ngedóoidieskantám
Recent Past				
Sing.	1 2 3n. 3m. 1+2	ngedóúdenengépy ngedóúdenengépi ngedóúdenengépým ngedóúdenengépim ngedóúdemnenengépim	ngedóúdenengempý ngedóúdenengempi ngedóúdenengempým ngedóúdenengempim ngedóúdemnenengempim	ngedóúdeskámpu ngedóúdeskámpu ngedóúdeskámpum ngedóúdeskámpam ngedóudemanskampám
Non-Sing.	1 2 3n. 3m. 1+2	ngedóúdienengépy ngedóúdienengépi ngedóúdienengépým ngedóúdienengépim ngedóúdienengépim	ngedóúdienengempý ngedóúdienengempi ngedóúdienengempým ngedóúdienengempim ngedóúdienengempim	ngedóúidieskámpu ngedóúidieskámpu ngedóúidieskámpum ngedóúidieskámpam ngedóúidieskampám

Past**Sing.**

1	ngedóudenengéký	ngedóudenengéký	ngedóudebekánku	ngedóudesekánku
2	ngedóudenengéki	ngedóudenengéki	ngedóudebekánke	ngedóudesekánke
3n.	ngedóudenengékým	ngedóudenengékým	ngedóudebekánkum	ngedóudesekánkum
3m.	ngedóudenengékím	ngedóudenengékím	ngedóudebekánkam	ngedóudesekánkam
1+2	ngedóudenengékím	ngedóudenengékím	ngedóudemambekánkám	ngedóudemansakánkám
Non-Sing. 1	ngedóidienengéký	ngedóidienengéký	ngedóidiebekánku	ngedóidiesekánku
2	ngedóidienengékím	ngedóidienengékí	ngedóidiebekánke	ngedóidiesekánke
3n.	ngedóidienengékým	ngedóidienengékým	ngedóidiebekánkum	ngedóidiesekánkum
3m.	ngedóidienengékím	ngedóidienengékím	ngedóidiebekánkam	ngedóidiesekánkam
1+2	ngedóidienengékím	ngedóidienengékím	ngedóidiebekánkám	ngedóidiesekánkám

Present

	13 th Pos.	14 th Pos.	15 th Pos.	16 th Pos.
Sing.				
1	ngedóudebenengátu	ngedóudesenenagátu	ngedóudekenenagétý	ngedóudesenenagétý
2	ngedóudebenengáte	ngedóudesenenagáte	ngedóudekenenagéti	ngedóudesenenagéti
3n.	ngedóudebenengátum	ngedóudesenenagátum	ngedóudekenenagétým	ngedóudesenenagétým
3m.	ngedóudebenengátam	ngedóudesenenagátam	ngedóudekenenagétim	ngedóudesenenagétim
1+2	ngedóudemambenenagátam	ngedóudemansenenagátam	ngedóudemekenenenagétim	ngedóudemensenenagétim
Non-Sing.				
1	ngedóódiebenengátu	ngedóódiiesenengátu	ngedóódiekenenagétý	ngedóódiiesenenagétý
2	ngedóódiebenengáte	ngedóódiiesenengáte	ngedóódiekenenagéti	ngedóódiiesenenagéti
3n.	ngedóódiebenengátum	ngedóódiiesenengátum	ngedóódiekenenagétým	ngedóódiiesenenagétým
3m.	ngedóódiebenengátam	ngedóódiiesenengátam	ngedóódiekenenagétim	ngedóódiiesenenagétim
1+2	ngedóódiebenengátam	ngedóódiiesenengátam	ngedóódiekenenagétim	ngedóódiiesenenagétim

Recent Past

	Same	Same	Same	Same
Sing.				
1				
2				
3n.				
3m.				
1+2				
Non-Sing.				
1				
2				
3n.				
3m.				
1+2				

Past

Sing.	1	ngedóudebenenngáku	ngedóudesenenngáku	ngedóudekenenngéky	ngedóudesenenngéky
	2	ngedóudebenenngáke	ngedóudesenenngáke	ngedóudekenenngéki	ngedóudesenenngéki
	3n.	ngedóudebenenngákum	ngedóudesenenngákum	ngedóudekenenngékym	ngedóudesenenngékym
	3m.	ngedóudebenenngákam	ngedóudesenenngákam	ngedóudekenenngékim	ngedóudesenenngékim
	1+2	ngedóudemambenenngákam	ngedóudemansenenngákam	ngedóudememenngékim	ngedóudemensenngékim
Non-Sing.	1	ngedóidiebenenngáku	ngedóidiesenenngáku	ngedóidiekenenngéky	ngedóidiesenenngéky
	2	ngedóidiebenenngáke	ngedóidiesenenngáke	ngedóidiekenenngéki	ngedóidiesenenngéki
	3n.	ngedóidiebenenngákum	ngedóidiesenenngákum	ngedóidiekenenngékym	ngedóidiesenenngékym
	3m.	ngedóidiebenenngákam	ngedóidiesenenngákam	ngedóidiekenenngékim	ngedóidiesenenngékim
	1+2	ngedóidiebenenngákam	ngedóidiesenenngákam	ngedóidiekenenngékim	ngedóidiesenenngékim

(I)

DURATIVE — MOMENTARY*1st Pos.**2nd Pos.**3rd Pos.**4th Pos.***Present**

Sing.

- 1 ngedóutemtý
 2 ngedóutemti
 3n. ngedóutemtým
 3m. ngedóutemtim
 1+2 ngedóutementim
 Non-Sing. 1 ngedóitientý
 2 ngedóitientí
 3n. ngedóitientým
 3m. ngedóitientim
 1+2 ngedóitientim

- ngedóutembéy
 ngedóutembéi
 ngedóutembyém
 ngedóutembém
 ngedóutemembém
 ngedóitientbéy
 ngedóitientbéi
 ngedóitientbyém
 ngedóitientbém
 ngedóitientém
 ngedóitientém

- ngedóutemséy
 ngedóutemséi
 ngedóutemsyém
 ngedóutemsém
 ngedóutemensém
 ngedóitientséy
 ngedóitientséi
 ngedóitientsyém
 ngedóitientsém
 ngedóitientsem
 ngedóitientsem

(I)

DURATIVE — ITERATIVE**Present**

Sing.

- 1 ngedóutemkety
 2 ngedóutemkėti
 3n. ngedóutemkétym
 3m. ngedóutemketim
 1+2 ngedóutemketim
 Non-Sing. 1 ngedóitientkety
 2 ngedóitientkėti
 3n. ngedóitientkétym
 3m. ngedóitientketim
 1+2 ngedóitientketim

- ngedóutembekety
 ngedóutembekėti
 ngedóutembekétym
 ngedóutembeketim
 ngedóutemembeketim
 ngedóitientbekety
 ngedóitientbekėti
 ngedóitientbekétym
 ngedóitientbeketim
 ngedóitientmgetim
 ngedóitientmgetim

- ngedóutemskety
 ngedóutemskėti
 ngedóutemskétym
 ngedóutemsketim
 ngedóutemensketim
 ngedóitientskety
 ngedóitientskėti
 ngedóitientskétym
 ngedóitientsketim
 ngedóitientmsetim
 ngedóitientmsetim

Recent Past

Sing.	1	ngedóutemkėpy	Same	Same
	2	ngedóutemkėpi		
	3n.	ngedóutemkėpym		
	3m.	ngedóutemkėpim		
Non-Sing.	1+2	ngedóutemenkėpím	as	as
	1	ngedóitiemkėpy		
	2	ngedóitiemkėpi	Present	Present
	3n.	ngedóitiemkėpym		
	3m.	ngedóitiemkėpim		
	1+2	ngedóitiemkėpím		

Past

Sing.	1	ngedóutemkéký	ngedóutembekéký	ngedóutemngéký	ngedóutemskéký
	2	ngedóutemkékí	ngedóutembekékí	ngedóutemngékí	ngedóutemskékí
	3n.	ngedóutemkékým	ngedóutembekékým	ngedóutemngékým	ngedóutemskékým
	3m.	ngedóutemkékím	ngedóutembekékím	ngedóutemngékím	ngedóutemskékím
Non-Sing.	1+2	ngedóutemenkékím	ngedóutemembekékím	ngedóutemengékím	ngedóutemenskékím
	1	ngedóitiemkéký	ngedóitiembekéký	ngedóitiemngéký	ngedóitiemskéký
	2	ngedóitiemkékí	ngedóitiembekékí	ngedóitiemngékí	ngedóitiemskékí
	3n.	ngedóitiemkékým	ngedóitiembekékým	ngedóitiemngékým	ngedóitiemskékým
	3m.	ngedóitiemkékím	ngedóitiembekékím	ngedóitiemngékím	ngedóitiemskékím
	1+2	ngedóitiemkékím	ngedóitiembekékím	ngedóitiemngékím	ngedóitiemskékím

(II)

DURATIVE — MOMENTARY

236

Present

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Sing.				
1	ngedóutemnéy	ngedóutembetý	ngedóutemsetý	ngedóutemsetý
2	ngedóutemnéi	ngedóutembetí	ngedóutemsetí	ngedóutemsetí
3n.	ngedóutemnyém	ngedóutembetím	ngedóutemsetým	ngedóutemsetým
3m.	ngedóutemném	ngedóutembetím	ngedóutemsetím	ngedóutemsetím
1+2	ngedóutemeném	ngedóutembetím	ngedóutemensetím	ngedóutemensetím
Non-Sing.				
1	ngedóitiemnéy	ngedóitiembetý	ngedóitiemsetý	ngedóitiemsetý
2	ngedóitiemnéi	ngedóitiembetí	ngedóitiemsetí	ngedóitiemsetí
3n.	ngedóitiemnyém	ngedóitiembetím	ngedóitiemsetým	ngedóitiemsetým
3m.	ngedóitiemném	ngedóitiembetím	ngedóitiemsetím	ngedóitiemsetím
1+2	ngedóitiemném	ngedóitiembetím	ngedóitiemsetím	ngedóitiemsetím

(II)

DURATIVE — ITERATIVE

Present

	5 th Pos.	6 th Pos.	7 th Pos.	8 th Pos.
Sing.				
1	ngedóutemngéty	ngedóutembekéty	ngedóutemskéty	ngedóutemskéty
2	ngedóutemngéti	ngedóutembekéti	ngedóutemskéti	ngedóutemskéti
3n.	ngedóutemngétým	ngedóutembekétým	ngedóutemskétým	ngedóutemskétým
3m.	ngedóutemngétím	ngedóutembekétím	ngedóutemskétím	ngedóutemskétím
1+2	ngedóutemenngétím	ngedóutembekétím	ngedóutemensketím	ngedóutemensketím
Non-Sing.				
1	ngedóitiemngéty	ngedóitiembekéty	ngedóitiemskéty	ngedóitiemskéty
2	ngedóitiemngéti	ngedóitiembekéti	ngedóitiemskéti	ngedóitiemskéti
3n.	ngedóitiemngétým	ngedóitiembekétým	ngedóitiemskétým	ngedóitiemskétým
3m.	ngedóitiemngétím	ngedóitiembekétím	ngedóitiemskétím	ngedóitiemskétím
1+2	ngedóitiemngétím	ngedóitiembekétím	ngedóitiemskétím	ngedóitiemskétím

Recent Past

Sing.	1	<i>Same</i>	ngedóutembeképy	ngedóutemsképy
	2		ngedóutembeképi	ngedóutemsképi
	3n.		ngedóutembeképym	ngedóutemsképym
	3m.	<i>as</i>	ngedóutembeképipim	ngedóutemsképipim
	1+2		ngedóutemembeképipim	ngedóutemensképipim
Non-Sing.	1		ngedóitiembeképy	ngedóitiemsképy
	2	<i>Present</i>	ngedóitiembeképi	ngedóitiemsképi
	3n.		ngedóitiembeképym	ngedóitiemsképym
	3m.		ngedóitiembeképipim	ngedóitiemsképipim
	1+2		ngedóitiembeképipim	ngedóitiemsképipim

Past

Sing.	1	ngedóutemngengéky	ngedóutemskéky
	2	ngedóutemngengéki	ngedóutemskéki
	3n.	ngedóutemngengékym	ngedóutemskékym
	3m.	ngedóutemngengékim	ngedóutemskékim
	1+2	ngedóutemengengékim	ngedóutemenskékim
Non-Sing.	1	ngedóitiemngengéky	ngedóitiemskéky
	2	ngedóitiemngengéki	ngedóitiemskéki
	3n.	ngedóitiemngengékym	ngedóitiemskékym
	3m.	ngedóitiemngengékim	ngedóitiemskékim
	1+2	ngedóitiemngengékim	ngedóitiemskékim

(III)

DURATIVE — MOMENTARY

9th Pos.10th Pos.11th Pos.12th Pos.**Present**

Sing.	1	ngedóutemnetý	ngedóutemkenty	ngedóutembenty	ngedóutemskenty
	2	ngedóutemneti	ngedóutemkenti	ngedóutembenti	ngedóutemskenti
	3n.	ngedóutemnetým	ngedóutemkentým	ngedóutembentým	ngedóutemskentým
	3m.	ngedóutemnetim	ngedóutemkentim	ngedóutembentim	ngedóutemskentim
Non-Sing.	1+2	ngedóutemnetim	ngedóutemkentim	ngedóutembentim	ngedóutemskentim
	1	ngedóitiemnetý	ngedóitiemkenty	ngedóitiembenty	ngedóitiemskenty
	2	ngedóitiemneti	ngedóitiemkenti	ngedóitiembenti	ngedóitiemskenti
	3n.	ngedóitiemnetým	ngedóitiemkentým	ngedóitiembentým	ngedóitiemskentým
3m.	ngedóitiemnetim	ngedóitiemkentim	ngedóitiembentim	ngedóitiemskentim	
	1+2	ngedóitiemnetim	ngedóitiemkentim	ngedóitiembentim	ngedóitiemskentim

(III)

DURATIVE — ITERATIVE

Present

Sing.	1	ngedóutemngéty	ngedóutemnykenty	ngedóutembekenty	ngedóutemskenty
	2	ngedóutemngéti	ngedóutemnykenti	ngedóutembekenti	ngedóutemskenti
	3n.	ngedóutemngétym	ngedóutemnykentym	ngedóutembekentym	ngedóutemskentym
	3m.	ngedóutemngétim	ngedóutemnykentim	ngedóutembekentim	ngedóutemskentim
Non-Sing.	1+2	ngedóutemengétim	ngedóutemnykentim	ngedóutembekentim	ngedóutemskentim
	1	ngedóitiemngéty	ngedóitiemnykenty	ngedóitiembekenty	ngedóitiemskenty
	2	ngedóitiemngéti	ngedóitiemnykenti	ngedóitiembekenti	ngedóitiemskenti
	3n.	ngedóitiemngétym	ngedóitiemnykentym	ngedóitiembekentym	ngedóitiemskentym
	3m.	ngedóitiemngétim	ngedóitiemnykentim	ngedóitiembekentim	ngedóitiemskentim
	1+2	ngedóitiemngétim	ngedóitiemnykentim	ngedóitiembekentim	ngedóitiemskentim

Recent Past

Sing.	1	ngedóutemnegépy	ngedóutemnykémpy	ngedóutembekémpy	ngedóutemskémpy
	2	ngedóutemnegépi	ngedóutemnykémpi	ngedóutembekémpi	ngedóutemskémpi
	3n.	ngedóutemnegépym	ngedóutemnykémpym	ngedóutembekémpym	ngedóutemskémpym
	3m.	ngedóutemnegépin	ngedóutemnykémpin	ngedóutembekémpin	ngedóutemskémpin
Non-Sing.	1+2	ngedóutemenegépin	ngedóutemenykepim	ngedóutembekémpim	ngedóutemskémpim
	1	ngedóitiemnegépy	ngedóitiemnykémpy	ngedóitiembekémpy	ngedóitiemskémpy
	2	ngedóitiemnegépi	ngedóitiemnykémpi	ngedóitiembekémpi	ngedóitiemskémpi
	3n.	ngedóitiemnegépym	ngedóitiemnykémpym	ngedóitiembekémpym	ngedóitiemskémpym
3m.	ngedóitiemnegépin	ngedóitiemnykémpin	ngedóitiembekémpin	ngedóitiemskémpin	
	1+2	ngedóitiemnegépin	ngedóitiemnykempim	ngedóitiembekempim	ngedóitiemskempim

Past

Sing.	1	ngedóutemnegéky	ngedóutemnykénky	ngedóutembekénky	ngedóutemskénky
	2	ngedóutemnegéki	ngedóutemnykéñki	ngedóutembekéñki	ngedóutemskéñki
	3n.	ngedóutemnegékym	ngedóutemnykéñkym	ngedóutembekéñkym	ngedóutemskéñkym
	3m.	ngedóutemnegékim	ngedóutemnykéñkim	ngedóutembekéñkim	ngedóutemskéñkim
Non-Sing.	1+2	ngedóutemenegékim	ngedóutemenykenkim	ngedóutembekéñkim	ngedóutemskéñkim
	1	ngedóitiemnegéky	ngedóitiemnykénky	ngedóitiembekénky	ngedóitiemskénky
	2	ngedóitiemnegéki	ngedóitiemnykéñki	ngedóitiembekéñki	ngedóitiemskéñki
	3n.	ngedóitiemnegékym	ngedóitiemnykéñkym	ngedóitiembekéñkym	ngedóitiemskéñkym
3m.	ngedóitiemnegékim	ngedóitiemnykéñkim	ngedóitiembekéñkim	ngedóitiemskéñkim	ngedóitiemskéñkim
	1+2	ngedóitiemnegékim	ngedóitiemnykenkim	ngedóitiembekenkim	ngedóitiemskénkim

DURATIVE — MOMENTARY

(IV)

	13 th Pos.	14 th Pos.	15 th Pos.	16 th Pos.
Present				
Sing.				
1	ngedóutembenenény	ngedóutemsenenény	ngedóutemkenenény	ngedóutemsenenény
2	ngedóutembenenéi	ngedóutemsenenéi	ngedóutemkenenéi	ngedóutemsenenéi
3n.	ngedóutembeneným	ngedóutemseneným	ngedóutemkeneným	ngedóutemseneným
3m.	ngedóutembenéném	ngedóutemseneném	ngedóutemkeneném	ngedóutemseneném
1+2	ngedóutembeneném	ngedóutemseneném	ngedóutemkeneném	ngedóutemseneném
Non-Sing.				
1	ngedóitiembenenény	ngedóitiemsenenény	ngedóitiemkenenény	ngedóitiemsenenény
2	ngedóitiembenenéi	ngedóitiemsenenéi	ngedóitiemkenenéi	ngedóitiemsenenéi
3n.	ngedóitiembeneným	ngedóitiemseneným	ngedóitiemkeneným	ngedóitiemseneným
3m.	ngedóitiembenéném	ngedóitiemseneném	ngedóitiemkeneném	ngedóitiemseneném
1+2	ngedóitiembeneném	ngedóitiemseneném	ngedóitiemkeneném	ngedóitiemseneném

DURATIVE — ITERATIVE

(IV)

Present				
Sing.				
1	ngedóutembenengéty	ngedóutemsenenengéty	ngedóutemkenengéty	ngedóutemsenenengéty
2	ngedóutembenengéti	ngedóutemsenenengéti	ngedóutemkenengéti	ngedóutemsenenengéti
3n.	ngedóutembenengétym	ngedóutemsenenengétym	ngedóutemkenengétym	ngedóutemsenenengétym
3m.	ngedóutembenengétim	ngedóutemsenenengétim	ngedóutemkenengétim	ngedóutemsenenengétim
1+2	ngedóutembenengétim	ngedóutemsenenengétim	ngedóutemkenengétim	ngedóutemsenenengétim
Non-Sing.				
1	ngedóitiembenengéty	ngedóitiemsenenengéty	ngedóitiemkenengéty	ngedóitiemsenenengéty
2	ngedóitiembenengéti	ngedóitiemsenenengéti	ngedóitiemkenengéti	ngedóitiemsenenengéti
3n.	ngedóitiembenengétym	ngedóitiemsenenengétym	ngedóitiemkenengétym	ngedóitiemsenenengétym
3m.	ngedóitiembenengétim	ngedóitiemsenenengétim	ngedóitiemkenengétim	ngedóitiemsenenengétim
1+2	ngedóitiembenengétim	ngedóitiemsenenengétim	ngedóitiemkenengétim	ngedóitiemsenenengétim

FIRST SECONDARY VERB CATEGORY

	1 st Pos.	2 nd Pos.	3 rd Pos.	4 th Pos.	5 th Pos.
Future					
Sing. 1	ngedóurarú	ngedóurebarú	ngedóurenarú	ngedóuresarú	ngedóurenarú
2	ngedóuraré	ngedóurebaré	ngedóurenaré	ngedóuresaré	ngedóurenaré
3n.	ngedóurarúm	ngedóurebarúm	ngedóurenarúm	ngedóuresarúm	ngedóurenarúm
3m.	ngedóurarám	ngedóurebarám	ngedóurenarám	ngedóuresarám	ngedóurenarám
1+2	ngedóudemandám	ngedóudemambarám	ngedóudemanaarám	ngedóudemansarám	ngedóudemanaarám
Dual 1	ngedóudiarú	ngedóúdiebarú	ngedóúdienarú	ngedóúdiesarú	ngedóúdienarú
2	ngedóúdiaré	ngedóúdiebaré	ngedóúdienaré	ngedóúdiesaré	ngedóúdienaré
3fem.	ngedóúdiarúm	ngedóúdiebarúm	ngedóúdienarúm	ngedóúdiesarúm	ngedóúdienarúm
3m.	ngedóúdiarám	ngedóúdiebarám	ngedóúdienarám	ngedóúdiesarám	ngedóúdienarám
3inan.	ngedóúkrarám	ngedóúkrebarám	ngedóúkrearám	ngedóúkresarám	ngedóúkrenarám
1+2	ngedóúdiemandám	ngedóúdiemambarám	ngedóúdiemanaarám	ngedóúdiemansarám	ngedóúdiemanaarám
Plur. 1	ngedóúdiemándu	ngedóúdiemambarú	ngedóúdiemanaarú	ngedóúdiemansarú	ngedóúdiemanaarú
2	ngedóúdiemánde	ngedóúdiemambaré	ngedóúdiemanaaré	ngedóúdiemansaré	ngedóúdiemanaaré
3anim.	ngedóúdiarám	ngedóúdiebarám	ngedóúdienarám	ngedóúdiesarám	ngedóúdienarám
3inan.	ngedóurarám	ngedóudebarám	ngedóúrejarám	ngedóúresarám	ngedóúrenarám

Present

Sing. 1	ngedóuratú	ngedóurebáu	ngedóurekeñáu	ngedóuresáu	ngedóurenáu
2	ngedóuraté	ngedóurebáe	ngedóurekeñáe	ngedóuresáe	ngedóurenáe
3n.	ngedóuratúm	ngedóurebóm	ngedóurekeñóm	ngedóuresóm	ngedóurenóm
3m.	ngedóuratám	ngedóurebám	ngedóurekeñám	ngedóuresám	ngedóurenám
1+2	ngedóudemantám	ngedóudemambám	ngedóudemamkeñám	ngedóudemansám	ngedóudemanaám
Dual 1	ngedóúdiatú	ngedóúdiebáu	ngedóúdiekeñáu	ngedóúdiessáu	ngedóúdienáu
2	ngedóúdiaté	ngedóúdiebáe	ngedóúdiekeñáe	ngedóúdiessáe	ngedóúdienáe
3fem.	ngedóúdiatúm	ngedóúdiebóm	ngedóúdiekeñóm	ngedóúdiessóm	ngedóúdienóm
3m.	ngedóúdiatám	ngedóúdiebám	ngedóúdiekeñám	ngedóúdiessám	ngedóúdienám
3inan.	ngedóúkratám	ngedóúkrebám	ngedóúkrekeñám	ngedóúkresám	ngedóúkrenám
1+2	ngedóúdiemantám	ngedóúdiemambám	ngedóúdiemamkeñám	ngedóúdiemansám	ngedóúdiemanaám
Plur. 1	ngedóúdiemántu	ngedóúdiemambau	ngedóúdiemamkeñau	ngedóúdiemansáu	ngedóúdiemanaú
2	ngedóúdiemánte	ngedóúdiemambáe	ngedóúdiemamkeñáe	ngedóúdiemansáe	ngedóúdiemanaé
3anim.	ngedóúdiatám	ngedóúdiebám	ngedóúdiekeñám	ngedóúdiessám	ngedóúdienám
3inan.	ngedóuratám	ngedóurebám	ngedóurekeñám	ngedóuresám	ngedóurenám

Recent Past

Sing. 1	ngedóurapú			
2	ngedóurapé			
3n.	ngedóurapúm			
3m.	ngedóurapám			
1+2	ngedóudemampám			
Dual 1	ngedóudiapú	Same	Same	Same
2	ngedóudiapé			
3fem.	ngedóudiapúm			
3m.	ngedóudiapám		as	as
3inan.	ngedóukrapám			
1+2	ngedóudiemampám			
Plur. 1	ngedóudiemámpu			Present
2	ngedóudiemámpé			
3anim.	ngedóudiapám			
3inan.	ngedóurapám			

Past

Sing. 1	ngedóurakú				
2	ngedóuraké				
3n.	ngedóurakúm				
3m.	ngedóurakám				
1+2	ngedóudemankám				
Dual 1	ngedóudiakú	ngedóurebakú	ngedóourenakú	ngedóourenakú	ngedóourenakú
2	ngedóudiaké	ngedóurebaké	ngedóourenaké	ngedóourenaké	ngedóourenaké
3fem.	ngedóudiakúm	ngedóurebakúm	ngedóourenakúm	ngedóourenakúm	ngedóourenakúm
3m.	ngedóudiakám	ngedóurebakám	ngedóourenakám	ngedóourenakám	ngedóourenakám
3inan.	ngedóukrakám	ngedóudemambakám	ngedóourenakám	ngedóourenakám	ngedóourenakám
1+2	ngedóudiemankám	ngedóoudiebakú	ngedóoudemansakám	ngedóoudemansakám	ngedóoudemansakám
Plur. 1	ngedóudiemanku	ngedóoudiebaké	ngedóoudiesakú	ngedóoudiesaké	ngedóoudiesaké
2	ngedóudiemanké	ngedóoudiebakúm	ngedóoudiesakúm	ngedóoudiesakúm	ngedóoudiesakúm
3anim.	ngedóudiemanké	ngedóoukrebakám	ngedóoukresakám	ngedóoukresakám	ngedóoukresakám
3inan.	ngedóourakám	ngedóoudiemambakám	ngedóoudiemansakám	ngedóoudiemansakám	ngedóoudiemansakám
		ngedóoudiemambakú	ngedóoudiemansakú	ngedóoudiemansakú	ngedóoudiemansakú
		ngedóoudiebaké	ngedóoudiemanké	ngedóoudiemanké	ngedóoudiemanké
		ngedóoudiebakám	ngedóoudienakám	ngedóoudienakám	ngedóoudienakám
		ngedóourebakám	ngedóourenakám	ngedóourenakám	ngedóourenakám

SECOND SECONDARY VERB CATEGORY

244

	1 st Pos.	2 nd Pos.	3 rd Pos.	4 th Pos.	5 th Pos.
Future					
Sing. 1	ngedóurerý	ngedóureberý	ngedóureŋerý	ngedóureserý	ngedóurenérý
2	ngedóureri	ngedóureberi	ngedóureŋeri	ngedóureseri	ngedóurenéri
3n.	ngedóurerým	ngedóureberým	ngedóureŋerým	ngedóureserým	ngedóurenérým
3m.	ngedóurerim	ngedóureberim	ngedóureŋerim	ngedóureserim	ngedóurenérim
1+2	ngedóudemendim	ngedóudememberim	ngedóudemengerim	ngedóudemenserim	ngedóudemenerim
Dual 1	ngedóudierý	ngedóudieberý	ngedóudienŋerý	ngedóudieserý	ngedóudienérý
2	ngedóudieri	ngedóudieberi	ngedóudienŋeri	ngedóudieseri	ngedóudienéri
3fem.	ngedóudierým	ngedóudieberým	ngedóudienŋerým	ngedóudieserým	ngedóudienérým
3m.	ngedóudierim	ngedóudieberim	ngedóudienŋerim	ngedóudieserim	ngedóudienérim
3inan.	ngedóukrerim	ngedóukreberim	ngedóukreŋerim	ngedóukreserim	ngedóukrenérim
1+2	ngedóudiemendim	ngedóudiememberim	ngedóudiemengerim	ngedóudiemenserim	ngedóudiemenerim
Plur. 1	ngedóudieméndy	ngedóudiememberý	ngedóudiemengerý	ngedóudiemensery	ngedóudiemenerý
2	ngedóudieméndi	ngedóudiememberi	ngedóudiemengeri	ngedóudiemenseri	ngedóudiemeneri
3anim.	ngedóudierim	ngedóudieberim	ngedóudienŋerim	ngedóudieserim	ngedóudienérim
3inan.	ngedóurerim	ngedóureberim	ngedóureŋerim	ngedóureserim	ngedóurenérim

Present					
Sing. 1	ngedóuretý	ngedóurebéy	ngedóurekeŋéy	ngedóureséy	ngedóurenéy
2	ngedóureti	ngedóurebéi	ngedóurekeŋéi	ngedóureséi	ngedóurenéi
3n.	ngedóuretim	ngedóurebéym	ngedóurekeŋéym	ngedóureséym	ngedóurenéym
3m.	ngedóuretim	ngedóurebéem	ngedóurekeŋéem	ngedóuresém	ngedóureném
1+2	ngedóudementim	ngedóudemembém	ngedóudemekŋém	ngedóudemensém	ngedóudeméném
Dual 1	ngedóudietý	ngedóudiebéy	ngedóudiekeŋéy	ngedóudieséy	ngedóudienéy
2	ngedóudieti	ngedóudiebéi	ngedóudiekeŋéi	ngedóudieséi	ngedóudienéi
3fem.	ngedóudietým	ngedóudiebéym	ngedóudiekeŋéym	ngedóudieséym	ngedóudienéym
3m.	ngedóudietim	ngedóudiebéem	ngedóudiekeŋéem	ngedóudiesém	ngedóudieném
3inan.	ngedóóukretim	ngedóóukrebéem	ngedóóukrekeŋém	ngedóóukresém	ngedóóukreném
1+2	ngedóudieméntim	ngedóudiemembém	ngedóudiemekŋém	ngedóudiemensém	ngedóudieméném
Plur. 1	ngedóudieménty	ngedóudiemembéy	ngedóudiemekŋéy	ngedóudiemenséy	ngedóudieménéy
2	ngedóudieménti	ngedóudiemembéi	ngedóudiemekŋéi	ngedóudiemenséi	ngedóudieménéi
3anim.	ngedóudietim	ngedóudiebéem	ngedóudiekeŋém	ngedóudiesém	ngedóudieném
3inan.	ngedóuretim	ngedóurebéem	ngedóurekeŋém	ngedóuresém	ngedóureném

Recent Past

Sing. 1	ngedóurepý			
2	ngedóurepí			
3n.	ngedóurepým			
3m.	ngedóurepim			
1+2	ngedóudemempim			
Dual 1	ngedóudiepý	Same	Same	Same
2	ngedóudiepi			
3fem.	ngedóudiepým			
3m.	ngedóudiepim		as	as
3inan.	ngedóukrepim			
1+2	ngedóudiemempim			
Plur. 1	ngedóudiemémpy			Present
2	ngedóudiemémpi			
3anim.	ngedóudiepim			
3inan.	ngedóurepim			

Past

Sing. 1	ngedóureký				ngedóurenéký
2	ngedóureki				ngedóureneki
3n.	ngedóurekým				ngedóurenékým
3m.	ngedóurekim				ngedóurenekim
1+2	ngedóudemekým				ngedóudemenekým
Dual 1	ngedóudieký				ngedóudienéký
2	ngedóudieki				ngedóudieneki
3fem.	ngedóudiekým				ngedóudienékým
3m.	ngedóudiekim				ngedóudienekim
3inan.	ngedóukrekim				ngedóukrenekim
1+2	ngedóudiemekým				ngedóudiemenekým
Plur. 1	ngedóudieménky				ngedóudiemeneký
2	ngedóudieménki				ngedóudiemeneki
3anim.	ngedóudiekim				ngedóudienekim
3inan.	ngedóurekim				ngedóurenekim

THIRD SECONDARY VERB CATEGORY

(Only Third Person Inanimate Plural)

	<i>1st Pos.</i> ngedóuorondým	<i>2nd Pos.</i> ngedóurombérym	<i>3rd Pos.</i> ngedóuorogérym	<i>4th Pos.</i> ngedóuromsérym	<i>5th Pos.</i> ngedóuromnérym
Future					
Present	ngedóuorontým	ngedóurombyém	ngedóuorogenyém	ngedóuromsyém	ngedóuromnyém
Recent Past	ngedóurompým		<i>Same</i>	<i>as</i>	<i>Present</i>
Past	ngedóuorokým	ngedóurombékym	ngedóuorogékym	ngedóuromsékym	ngedóuromnékym

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