

OUTLINE OF DANI MORPHOLOGY

P. A. M. VAN DER STAP

STELLINGEN

I

De phonemengroep *s-h-t-ʔ*, die in talrijke papoea-talen voorkomt, is proto-papoea; zij dient vergeleken te worden met overeenkomstig materiaal van het proto-austronesisch.

II

Dat de Dani adhortatief-morphemen *k* en *n* (resp. 1e en 2e persoon) tegenover de persoons-morphemen *n* en *h/k* tot een austronesisch prototype te herleiden zijn, is een reële mogelijkheid, doch vereist nader onderzoek.

III

Wat in de traditionele school-grammatica geboden wordt aan theorie over de liquidae is onvoldoende. Bij de opleiding tot linguïstisch field-worker dient o.a. aan deze kwestie aandacht besteed te worden

IV

Niet alleen de Kapauku telwoorden van 6 t/m 9 zijn, zoals P. Drabbe stelt, van Indonesische herkomst, ook voor het telwoord voor „vijf” geldt dit; in dit licht dient men de verhouding te bezien van *idibi* „vijf” tot *idima* „alle”, „allen”.

V

Wanneer men spreekt van „oecumenisch huwelijk”, dan blijkt uit deze koppeling van substantief en adjectief weinig begrip voor „oecumenisch” als technisch-theologische term

VI

De zinsnede in het „Onze Vader”: „leid ons niet in bekoring (verzoeking)” berust philologisch op een misverstand, en is theologisch onjuist.

VII

Ontwikkelingshulp kan slechts doelmatig zijn, indien het hulpverlenend personeel zolang in het betrokken gebied blijft, dat het een grondige kennis van zijn problematiek kan hebben verworven; daarom is in vele gevallen inschakeling van Missie en Zending gewenst.

VIII

De invoering van een „numerus clausus” voor medische studenten is niet in het belang van de onderontwikkelde gebieden.

IX

De recente invoering van de „volkstaal” in de liturgie van de R.K. Kerk steunt te weinig op vergelijkende studie van priestertalen, en is een miskennis van de functie, die priestertalen overal ter wereld hebben. Richtlijnen van de kerkelijke autoriteiten steunende op kennis van de etnologische problematiek, zijn dringend gewenst.

X

Het feit dat in de Westerse wereld steeds meer sociale groepen deelhebben aan de materiele welvaart ondermijnt de „haute couture” en bevordert de *confectie-industrie*.

XI

De in het Dani voorkomende namen van diverse natuurverschijnselen bevatten een in onbruik geraakte geprefigeerde genus-aanduiding.

XII

De penis-koker, in gebruik bij de berg-papoea's, dient gezien te worden als schaambedekking.

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PROEFSCHRIFT

TER VERKRIJGING VAN DE GRAAD
VAN DOCTOR IN DE LETTEREN
AAN DE RIJKSUNIVERSITEIT TE LEIDEN,
OP GEZAG VAN DE RECTOR MAGNIFICUS DR. J. DANKMEIJER,
HOGLERAAR IN DE FACULTEIT DER GENEESKUNDE,
TEN OVERSTAAN VAN EEN
COMMISSIE UIT DE SENAAT TE VERDEDIGEN
OP VRIJDAG 8 JULI 1966 TE 16 UUR

DOOR

PETRUS ANTONIUS MARIA VAN DER STAP

geboren te Hengelo (O) in 1920

N.V. DE NEDERLANDSCHE BOEK- EN STEENDRUKKERIJ V/H H. L. SMITS
'S-GRAVENHAGE

OUTLINE OF DANI MORPHOLOGY

PREFACE

In the very heart of West Irian or West New Guinea live the Dani's, a Highland people scattered over several valleys and along several rivers, roughly between 137° and 140° East. Long. and 3° and 5° South. Lat.

The name "Dani" is a "pars pro toto", Dani or Diani being the name of a certain clan in the Balim Valley, but nowadays it is understood by Dani's as well as non-Dani's to designate the whole people.

The most densely populated in Dani territory is, no doubt, the Balim Valley on the eastern edge of it.

The present description of Dani morphology will deal with the language spoken approximately in the centre of this Balim Valley around the Government Post Wamena by a tribe called Mugogo, if we can call this community a proper tribe: many people belonging to the Mugogo community claim to belong to other tribes.¹

Due to progressive pacification and to periodic shifting of sweet potato gardens the Mugogo habitat has no sharp borders. Roughly speaking the Mugogo live in a triangle between the rivers Hethu, Wetakeik, and Balim, and even in a narrow stretch across Balim river. In this Mugogo area is situated the Government Post and the Air-strip Wamena, both of them attracting incidentally or permanently people from other Dani tribes, from other parts of New Guinea, and from as far away as Java and Sumatra, as well as a number of Europeans, Americans, and Australians representing different missionary bodies.

Although the Mugogo community thus may incorporate members of other tribes, and is daily confronted with non-Dani languages, people

¹ There are more phenomena, suggesting that the Mugogo are perhaps not a fully-fledged tribe at all, but a more or less integrated community of people from all over the Valley. Perhaps anthropological research will find out some day that Dani culture recognizes "asylums", where criminals and other outcasts are allowed to live; if so, it is not unthinkable that the Mugogo area is such an "asylum". Moreover, whereas as a rule the tribes are called after the component clans (e.g. Hupy-khiak, Hupy-gosi, Siep-gosi, Siep-aso, Diani-maduan), the Mugogo community has a name which apparently deviates from this pattern (*mugogo* means: "heron").

do communicate and their language functions satisfactorily without noticeable friction

Research in this area was done by the present writer during nearly six years from February 1958 until November 1963, interrupted by a five month stay in Ilaga Valley on the Western edge of Dani territory

The method of research was a direct one, without the intermediary of interpreters. This method, starting at the stage of gesticulation and mimicry, implies a cumbersome and troublesome investigation, trial and error, check, re-check, and cross-check, but has the advantage that the investigator is obliged to learn the language himself, so that the danger of overlooking important morphological categories is strongly reduced

Information was obtained from scores of people, male and female, old and young, while more intricate matters were explored and discussed with the aid of a permanent team of youngsters between sixteen and twenty five years of age

The present writer, as an investigator, had the habit, especially when exploring intricate matters, of having the informants rest and chat a while after some ten minutes of investigation, because linguistic reflection for the average Dani proved too tiresome a job to be reliable after a quarter of an hour's investigation, after five or ten minutes' rest the work would then be resumed

All utterances of Dani speakers to be had were noted down, but those not corroborated by at least three different and independent speakers were laid aside as being suspect, misheard, misunderstood, or idiolectic

Often it proved useful to repeat the same research with the same informant after a month or six weeks to eliminate errors; if in such a case an informant gives different information, and is confronted with his first utterances, the researcher has the opportunity to make the necessary corrections, or — at times — to track down an hitherto unknown category

The Dani have no script, and never have had, as far as is known. So no written sources are available and no direct knowledge of the history of their language is possible. For gaining historical insight into the Dani language one only can hope for the results of comparative linguistics in the future, as soon as a description of all or a large number of the New Guinea languages is available

To provide future comparative linguists with a part of their working materials is one of the purposes of the present description of Dani morphology.

I owe a great debt of gratitude to my superiors, His Exc. Dr. R. Staverman and the Most Reverend P. Hogenboom, who both stimulated me not only by extending my furlough, by giving me every moral support, and by financing my studies, but above all by their warm interest in my fieldwork. Thanks to them I could dedicate all my time, during my 7½ years' stay in New Guinea, to the study of New Guinea languages.

Many are those who in some way or other have helped me in writing this "Outline", and whom I cannot mention by name.

The tedious task of correcting the English text was willingly undertaken and carefully accomplished by my old friend, Drs C. N. M. de Goede, and by Mr. S. O. Robson B. A. For their help I owe them a great debt of gratitude.

Last but not least I am very grateful towards the "Koninklijk Instituut voor Taal-, Land-, en Volkenkunde" for publishing this book.

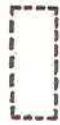
More than by any scholar I was stimulated by my father and by my mother who was never to see this book finished. It is to them that this book is dedicated in filial affection.

Voorschoten. March 1966.

P. v. d. Stap o.f.m.



Legenda:



= Muegogo area



MAP OF THE
BALIM VALLEY

CHAPTER I

INTRODUCTION

When setting about the description of the morphology of a language one has to face the difficulty that what is morphologically interesting about the language, makes its appearance in sentences, and is always somehow or other linked with syntax. In Dani this is especially clear in the case of two participles which show opposition only in syntactic valence.

Nevertheless in the following pages an attempt will be made to describe Dani morphology while omitting the syntax; the ensuing difficulty will be solved by giving a superficial description of the word-classes involved. This description is valid only to the extent to which those word-classes enter the domain of the present morphological research.

Moreover, in those cases in which something has to be said about the syntactical aspects of some category or other, this will be done under the heading "Use".

Of course, this implies an anticipation of the description of Dani syntax, but it is inevitable, given the fact that morphological categories may have syntactical implications. A complete description of Dani word-classes cannot be given without the description of syntax. Therefore word-class terms will be used in the present book without further explanation.

A number of terms which will be handled in the following pages may be summarized here:²

a word is the smallest independent meaningful unit in a language, characterized by:

² Because the terminology used by J. C. Anceaux in "The Nimboran Language" suits a description of Dani satisfactorily, it is adopted here for that purpose. Cp. J. C. Anceaux: "The Nimboran Language", Phonology and Morphology; Verhandelingen van het Koninklijk Instituut voor Taal-, Land-, en Volkenkunde, 44; 's-Gravenhage 1965.

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

a **morpheme**: the formal features marking members of a morphological category as such;

a **morphological category**: a group of words with a partial similarity in their forms and with a common element in their meaning and/or a certain syntactic valence, 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 and/or a different syntactic valence;

a **morphological set**: a group of words belonging to different morphological categories, but corresponding with each other in form and meaning,

the corresponding formal feature being called: **root-morpheme**,
the corresponding semantic feature being called: **lexical meaning**;

a **categoric meaning**: the semantic feature, common to all members of a morphological category;

a **productive category**: a morphological category which may be applied by a speaker to more and more cases;

an **improductive category**: a morphological category which can be applied by a speaker to only a restricted number of cases;

such an improductive category is:

either **competitive**, if it exists side by side with another category with the same meaning and use,

or **blocking**, if it rules out, for a given meaning and use, the application of another category;

a **morphological system**: a group of interrelated morphological categories of the same morphological set

After the expert description of Dani Phonology by Myron Bromley, there is no need for a further description³

Only the following remarks must be made:

1. Mugogo dialect has its place — phonologically as well as geographically — in between Bromley's "Lower Aikhe Dani" and his "Lower Grand Valley Dani".⁴
2. The sounds *gw* and *kw* were found so sporadically, and always beside

³ H. Myron Bromley "The Phonology of Lower Grand Valley Dani", a Comparative Structural Study of Skewed Phonemic Patterns, *Verhandelingen van het Koninklijk Instituut voor Taal-, Land-, en Volkenkunde*, 34, 's-Gravenhage 1961

⁴ H. Myron Bromley *o.c.* pp. 13 and 20 ff

g and *k* resp., that the writer feels entitled to ignore them as separate phonemes for Mugogo Dani.

3. Mugogo Dani has a glottal stop, but its phonemic status as yet is uncertain. See e.g.:

<i>na'la</i>	"in me", also: <i>natla</i> and <i>nakla</i> ;
<i>nal a</i>	"my faeces?";
<i>na'yt</i>	"I don't like", other dialects having:
<i>napyt.</i>	

In the present book the glottal stop will be treated as a phoneme and written with the symbol '.

During a conference of linguists of the Government and the different missionary bodies in February 1961 a number of rules were laid down for a uniform orthography of Dani language. These rules are followed here. The most striking points of this orthography may be quoted here: the symbols *b*, *d*, and *g* are used for voiceless stops (in this voicelessness they deviate from what is usual in most orthographies), while special attention must be paid to what in the following synopsis is termed: 'stops/fricatives' viz. *p*, *t*, and *k*, which are realized:

initially:	as voiceless and aspirated stops,
finally and	
in clusters:	as voiceless stops,
intervocally:	<i>p</i> as a voiced bilabial fricative [ɸ],
	<i>t</i> as a voiced flapped <i>r</i> , and
	<i>k</i> as a voiced velar fricative [g].

The phonological apparatus of Mugogo Dani thus comprises:

consonants	bilabial	dental	velar	glottal
voiceless stops				
unaspirated:	<i>b</i>	<i>d</i>	<i>g</i>	'
stops/fricatives:	<i>p</i>	<i>t</i>	<i>k</i>	
continuants				
voiceless:		<i>s</i>	<i>h</i>	
nasals:	<i>m</i>	<i>n</i>		
lateral:		<i>l</i>		
implosives:	<i>bp</i>	<i>dl</i>		
semi-vowels:	<i>w</i>	<i>j</i>		

vowels	front	central	back
high close:	i		u
high open:	y		ɔ
mid:	e		o
low:		a	

diphthongs: *ei, ai, au, oi, ou.*

The scheme of the present book.

First the productive verb-categories are dealt with in Chapter 2. While discussing these categories, we will make a distinction between: forms betraying some relation to an actor ('number' and/or 'person' of actor); these forms are labelled: "actor-forms"; and: forms betraying no relation to any actor, neither 'number' nor 'person'; they are called here „actorless forms”.

The "actor-forms" and the "actorless forms" are discussed in Parts A and B resp. of Chapter 2.

For practical reasons — because it is desirable to have a reference-point for comparison — we will first treat the morphological category of the infinitive, although it is an "actorless form".

Chapter 3 deals with the unproductive verb-categories; in this chapter the same distinction is made between "actor-forms" (Part A) and "actorless forms" (Part B).

Chapter 4 gives the few things that are morphologically noteworthy about other word-classes.

**PRODUCTIVE
VERB-CATEGORIES**

Introduction

§ 1. The category of the infinitive⁵

When comparing:

<i>balin</i>	“to cut” with:
<i>balhe</i>	“he cut (recently)”,
<i>balikin</i>	“one actor will cut”,
<i>baluok</i>	“let us cut”, or with:
<i>balinoko</i>	“running the risk of cutting”;
	or:
<i>wakanin</i>	“to take” with:
<i>wakanhe</i>	“he took (recently)”,
<i>wakanikin</i>	“one actor will take”,
<i>wakanuok</i>	“let us take”, or with:
<i>wakaninoko</i>	“running the risk of taking”;
	or:
<i>wetasin</i>	“to roast” with:
<i>wetathe</i>	“he roasted (recently)”,
<i>wetasikin</i>	“one actor will roast”,
<i>wetasuok</i>	“let us roast”, or with:
<i>wetasinoko</i>	“running the risk of roasting”;

one is struck by the apparent fact that in the last four sentences of each paradigm besides the act of cutting or taking or roasting there is expressed at least one speciality connected with the act of cutting or taking or roasting, be it the time, or the acting person, or the mental inclination, or the willingness to perform the acts etc.

At the same time one observes that the formal element *in* disappears as soon as such a speciality is taken into account.

⁵ This category is discussed first for practical reasons.

With an — in principle — infinite number of action-words the same observation can be made: whenever a formal element other than *in* is involved, the lexical meaning of the action-word is restricted to a certain situation.⁶ So one is forced to the conclusion that a most unspecified meaning and the formal element *in* constitute a morphological category which henceforward will be called here: the category of the *infinitive*.

When applying the definitions of Chapter 1 to the first paradigm given above (*balin*, *balhe*, etc.), we find an example of a morphological set, because all these forms correspond in:

the formal element *bal*: the “root-morpheme”, and the semantic feature that all these forms somehow are connected with the act of cutting, which then apparently is its “lexical meaning”.

Considering more specifically the first forms of the three paradigms, i.e. their “infinitives” in opposition to the other forms, the “categoric meaning” of the infinitive category appears to be: stating a bare action without mentioning identity and/or number of actor (actors), or time, or aspect, in other words — as it was termed above — a most unspecified meaning.

Use.

The infinitive is infrequently used in Dani. Virtually the only situations in which they are used are:

a. Mimic demonstration, e.g.:

jythoko menasin, *jythoko welasin*

(thus to-stand, thus to-lie), i.e.:

“If like this, you call it ‘to stand’, if like this, you say ‘to lie’”.

b. Suppositions, e.g.:

ap apvk akasin halok-he, ‘*nakajak*’ *yn*

(man to-meet in-case-of, ‘*nakajak*’ then), i.e.:

“if you meet a man, then you say ‘*Nakajak*’”.

Remark.

For the benefit of non-Dani’s it seems advisable to take this category for use in dictionaries etc., because

⁶ Without entering upon the character and borderlines of different “word-classes” some existing terms of word-classes will be introduced in the present book. Thus the term “verb” is adopted for those Dani words which somehow bear a semantic content of action (in its broadest possible sense). What a Dani verb is like is described more specifically in the following pages.

it has the most unspecified meaning, and it renders the root-morpheme in an unambiguous shape, so that — especially with root-morphemes ending in *s* — no errors need be made.

§ 2. Morphological remarks

A scrutiny of two morphological sets, each of them representing a large number of comparable forms

<i>hymasın</i>	“to hide”
<i>hymasu</i>	“in order to hide”
<i>hymathy</i>	“I hid”
<i>hymatnesin</i>	“to hide for me”
<i>hymatlasın</i>	“to get lost”, “to be missing”
	and:
<i>akanın</i>	“to take”
<i>akanu</i>	“in order to take”
<i>wakanhy</i>	“I took”
<i>wakannesin</i>	“to fetch for me”,

makes clear that root-morpheme-final *s* is replaced by *t* as soon as a consonant follows

Part A Actor-forms

§ 3. The category of the near future tense⁷

The forms.

<i>we'asıkın</i>	“one actor will roast” ⁸
	in comparison with:
<i>wetasın</i>	“to roast”
	and:
<i>ıasıkın</i>	“one actor will cook”
	in comparison with
<i>ıasın</i>	“to cook”
	and:
<i>balıkın</i>	“one actor will cut”
	in comparison with:
<i>balın</i>	“to cut”,

⁷ If not contradicted by the context or by an explicit specification, in the following pages by ‘category’ is meant morphological category

⁸ By ‘actor’ here and elsewhere we mean the person or persons animal or animals, thing or things to which an action is attributed

or whatever verb treated in an analogous way, betray from the morphological point of view a rootmorpheme and a formal element *ikin*, and from the semantic point of view two different moments: a temporal one and a numerical one, viz an action in the future by one actor.

Apparently these forms are in opposition to the forms of the infinitive; moreover this opposition is not a casual one, but a categoric opposition. Just like in § 1 the formal feature *in* and the semantic feature "unspecified meaning", so in the present section the formal element *ikin* and the meaning "an action in the future by one actor" are categorial characteristics. Therefore we speak of the morphological category of the *n e a r f u t u r e t e n s e*.

However, because this near future tense category can be opposed to other categories dealing with the future (to be discussed later), a more elaborate description of the categoric meaning seems advisable; therefore the near future tense category is best characterized:

f o r m a l l y by tense-morpheme *ikin*;

s e m a n t i c a l l y by the information that the action will be achieved by one actor in the near and definite future.

Use.

The near future tense category is used in those cases in which an action is described taking place in the *n e a r* future; just *what* stretch of time is 'near' is hard to say exactly; it comprises any moment from the next minute to several months in the future.

What is meant by 'definite' is best explained negatively: the future is definite if it is not vague as to the exact moment, nor strived after, nor feared, nor intended, nor desired (for in those cases other categories are used: indefinite future tense, adhortative, contingent, intentional or voluntative aspect categories etc.).

Remark.

Although falling outside the scope of this book, a word must be said about the dog Dani used in contact between Dani's and non-Dani's.

When communicating with a non-Dani, the Dani's are inclined to use a verbal form, formally identical with the near future tense category of true Dani, to denote an action either in its most unspecified meaning (i.e. as an infinitive), or specified as to object, as to identity or number of actors, as to aspect (intention, willingness etc.) and the like. At best, for actions taking place in the past, one adds: *atat* "finished". E.g.

<i>dlakhotha</i>	
<i>wesikin atat</i>	"The Dakota has come"
<i>dloktet wesikin</i>	"the doctor (doctors) comes (come), or must come, or will come, or intends (intend) to come, or is (are) expected to come, or has (have) come, etc."
	compare true Dani:
<i>dloktet wesikin</i>	"the doctor will come".

§ 4. The category of the apophonic near future tense

The verbal forms:

<i>wetasukun</i>	"plural actor will roast",
<i>isasukun</i>	"plural actor will cook", and
<i>balukun</i>	"plural actor will cut",
as opposed to the forms of the preceding sections:	
<i>wetasin</i>	"to roast",
<i>wetasikin</i>	"singular actor will roast",
<i>isasin</i>	"to cook",
<i>isasikin</i>	"singular actor will cook",
<i>balin</i>	"to cut",
<i>balikin</i>	"singular actor will cut",

or other comparable forms, treated in an analogous way, denote formally the element *ukun* following the root-morpheme, and semantically the information that such and such action will be achieved in the future by more than one actor.

Whenever one finds a verbal form with a most unspecified meaning, i.e. an infinitive, one can expect a verbal form of the shape given above: the element *ukun* following the root-morpheme, entailing a modification of the unspecified meaning to denote a future action by two or more actors.

Comparing these forms to those of the near future tense category specifically (§ 3), one is struck by the similarity in form (root-morpheme followed by *ikin* and *ukun* resp.) as well as in meaning, both of them describing an action in the near and definite future.

Thus bearing all traits of a morphological category on the one hand, and a great similarity to the near future tense category on the other, one feels inclined to consider these forms *wetasukun*, *isasukun* and the like as members of a category, and an apophonic category at that.

Therefore these forms will henceforward be called here: forms of the apophonic near future tense category.

Use.

This apophonic near future tense category is used in all those cases in which the near future tense category is used — taking into account the ‘number’ of actors — i.e. for the near and definite future (cp. § 3).

§ 5. The category of the indefinite future tense

One can draw up in Dani a large number of paradigms of the following shape:

<i>wetasin</i>	“to roast”
<i>wetasisikin</i>	“singular actor will roast (later)”
<i>balin</i>	“to cut”
<i>balisikin</i>	“singular actor will cut (later)”
<i>wakanin</i>	“to take”
<i>wakanisikin</i>	“singular actor will take (later)”

Whenever the formal element *isikin* appears, the most unspecified meaning is replaced by the meaning of an action in a remote and/or indefinite future by one actor.

When opposed not to the category of the infinitive, but to the near future tense category, viz.:

wetasikin “one actor will roast in the near future”

versus

wetasisikin “one actor will roast in the dim future”,

balikin “one actor will cut in the near future”

versus

balsikin “one actor will cut in the indefinite future”

etc., a formal element *is* appears which somehow is interconnected with a shift in meaning from near future to indefinite future. Apparently these are symptoms of a category.

Further insight is gained by bringing the apophonic near future tense category into play. By the opposition of:

wetasukun “plural actor will roast (before long)” vs.

wetasisukun “plural actor will roast (later)”,

the opinion, formulated above, is corroborated: whenever the formal element *is* precedes a near future or apophonic near future tense-morpheme, the semantic feature is produced that the action will take place in an indefinite future. Therefore we can assign these forms *wetasisikin* and *wetasisukun* etc. to a morphological category, viz. the category of the indefinite future tense. It is characterized:

formally by the tense-morpheme *is* preceding the morpheme of the near future and apophonic near future tense; semantically by the information that the action will take place in an indefinite and distant future.

Use.

This category is only found with tense-morphemes of the near future and apophonic near future tense.

Although productive, this category is very infrequently used, mostly in fantasies and speculations about what may or will happen after a long time.

What exactly is a 'long time', one cannot define with the aid of a chronometer; roughly one can say that it starts after several months from now.

Moreover this temporal aspect is influenced by and overshadowed by the second aspect of the categoric meaning: its indefiniteness; this category is indefinite not only in its temporal aspect, but also in so far as it includes or may include the attitude of the actor or actors towards the action (willingness, inclination, intention, fear, etc.).

Remarks.

1. When comparing this indefinite future tense category on the one hand and the near future and apophonic near future tenses on the other, one is struck by the fact that two sets of criteria are used in each of them: nearness and definiteness over against remoteness and indefiniteness. This fact suggests the question: what about conflict between these criteria, e.g. when in a far but clearly determined future (say: in nine months and three days from now) a certain action will take place. In such conflicting situations it seems that the aspect of definiteness c.q. indefiniteness prevails over the temporal aspect. So, in the given instance (nine months and three days) one can expect the near future tense category.

2. Although the indefinite future tense category most often occurs in a distant future, we did not label it as a "distant future" or "remote future" tense category just to prevent the reader from ranking it involuntarily with the near future tense category. The reason is that there is no rectilinear opposition between the two of them: the definiteness of the near future tense category is a purely temporal one, whereas the

'indefiniteness' of the indefinite future tense category is not only a temporal one, but also one of aspect.⁹

§ 6. Actor-categories

In Dani one frequently meets verbal forms like:

<i>hymathy</i>	"I hid (recently)"	cf. <i>hymasin</i>	"to hide"
<i>jokothy</i>	"I said"	cf. <i>jokosin</i>	"to say"
<i>wakanhy</i>	"I took"	cf. <i>wakanin</i>	"to take"
<i>wetathy</i>	"I roasted"	cf. <i>wetasin</i>	"to roast"

With a large number of verbs comparable series may be made.

When comparing these forms one is convinced that whenever the formal element *hy* is found after the root-morpheme, the lexical meaning of the rootmorpheme is restricted to:

an action in the (recent) past by the speaker as actor.

However, because, abstractly speaking, a speaker can say something about what he is going to do in the future, the connection between 'by the speaker as actor' and 'an action in the (recent) past' cannot be an intrinsical one; in other words, the two aspects of meaning (the personal aspect and the temporal one) belong to different orders.¹⁰

At this stage of investigation no forms are available to which the forms *hymathy*, *jokothy* etc. can successfully be opposed: neither the infinitive nor the different future tense categories tell us anything about the speaker as such. At best one can say that the forms given above bear categoric traits.

In order to investigate the cited forms more fully one of the semantic aspects must be made variable, either the actor-aspect or the tense-aspect.

Taking the actor-aspect as a variable and looking for other actors, one finds opposed to the cited forms, viz.:

⁹ After this discussion of the indefinite future tense category it will be clear that the writer attaches no special value to terms like "tense" and "aspect" when applied to morphological categories; here they merely serve as labels for distinguishing different categories; thus for the indefinite future tense category the term "indefinite future aspect category" would have done as well

¹⁰ "If categories, belonging to the same morphological system show opposition, and, therefore, are mutually exclusive within one word, they are of the same order; not showing opposition they are of different order." Cp. Anceaux: o.c. p. 55.

- (a) *hymathy* "I hid"
jokothy "I said"
wakanhy "I took"
wetathy "I roasted"

other forms like:

- (b) *hymathen* "you (singular) hid"
jokothen "you said"
wakanhen "you took"
wetathen "you roasted"

These and similar forms are found when the speaker of an utterance addresses himself to the (one) receiver (the addressee).

Now opposing the forms sub b) to those sub a) we see that a variation of the actor-aspect apparently entails a modification of the form:

hymathy versus
hymathen,

and, as the same phenomenon applies to all verbs, in other words: as there always is (when speaking about recent past actions) a predictable connection between formal feature γ and the semantic feature that the speaker is the actor, or between formal feature en and the semantic feature that the actor is identical with the receiver of the information, it is clear that two categories have appeared:

for actions in the recent past
 formal feature γ ,
 semantic feature: 'actor is the speaker', and
 formal feature en ,
 semantic feature: 'actor is the hearer'.

These are predictable and categoric.

Therefore γ and en are entitled to the term "actor-morpheme" within the framework of recent past actions.¹¹

If a speaker gives his addressee or addressees a piece of information about the action (in the recent past) of another person or animal or thing or event, he uses forms like:

- (c) *hymathe* "he (she, it) hid recently"
jokothe "he (she, it) said"
wakanhe "he (she, it) took"
wetathe "he (she, it) roasted".

¹¹ For the sake of brevity henceforward we shall speak of: "first person singular" or "1st p sg" whenever the actor of the verb is identical with the speaker of the utterance, and of: "second person singular" or "2nd p sg" whenever the actor of the verb is identical with the addressee (hearer) of the utterance.

These forms, when compared with those sub (a) and (b) above, show the formal feature *e* being coherent with the semantic feature that the action is ascribed to one human being, or animal, or thing, or event other than speaker and addressee.

Always within the framework of utterances concerning the recent past there is a predictable connection between the formal element *e* and the (one) human being or animal etc. to which the action is attributed, in other words, there is a categoric connection. The formal feature *e* thus is the actor-morpheme (for recent past actions) for the (one) actor who is neither the speaker nor the addressee.

Proceeding in the same way, i.e. treating the actor as a variable, one runs into forms which have:

two or more actors among whom is the speaker of the utterance, such as:

- (d) *hymatho* "we hid"
jokocho "we said"
wakanho "we took"
wetatho "we roasted"

or:

two or more actors among whom there is one or more or all of the addressees, e.g.:

- (e) *hymathep* "you (pl) hid (recently)"
jokothep "you said"
wakanhep "you took"
wetathep "you roasted",

or:

two or more actors who are neither identical with the speaker nor with the addressee or addressees, e.g.:

- (f) *hymatha* "they hid (recently)"
jokotha "they said"
wakanha "they took"
wetatha "they roasted".¹²

Summarising the outcome of the comparisons sub (a) - (f) for actions in the recent past we find the identity of the actor marked by:

¹² For briefness' sake from now on the actors of the verbal forms sub (c), (d), (e), and (f) will be called: "third person singular" or "3rd p. sg." (cf. (c)); "first person plural" or "1st p. pl." (cf. (d)); "second person plural" or "2nd p. pl." (cf. (e)); "third person plural" or "3rd p. pl." (cf. (f)). At a later stage of investigation distinction will be made (for objects, not for actors) between human beings and pigs on the one hand, other animals, events, and inanimate objects on the other.

actor-morpheme *y* for 1st p. sg.
 actor-morpheme *en* for 2nd p. sg.
 actor-morpheme *e* for 3rd p. sg.
 actor-morpheme *o* for 1st p. pl.
 actor-morpheme *ep* for 2nd p. pl.
 actor-morpheme *a* for 3rd p. pl.

Because all actions in the recent past use these actor-morphemes, one of them can stand for all of them as a representative, i.e.: given a recent action, circumscribed as e.g.,

munenhy "I delayed",

the other actor-forms are predictable:

munenhen "you (sg) delayed",

munenhep "you (pl) delayed", etc.

The means are available now to treat the forms sub (a) above in an inverted way, viz. by having the actor-moment as the stable factor and the time-moment (tense) as the variable factor. This is done in the next section.

§ 7. The category of the near past tense

hymathy "I hid (recently)"
jokothy "I said"
wakanhy "I took"
weiathy "I roasted".

When opposing these forms (or one of them, e.g. *wakanhy*) to the categories already known, i.e.:

wakanhy "I took (recently)" versus
wakanikin "sg. actor will take"
wakanukun "pl. actor will take"
wakanin "to take",

the first form (*wakanhy*) is distinguished from the other ones in that it has the root-morpheme plus formal feature *hy*; the whole of the form has as its semantic feature 1st p. sg performed the action (of taking) in the recent past.

What action is involved is made clear by the root-morpheme *wakan* and its lexical meaning "to take"; therefore the actor-aspect of 1st p. sg and the temporal aspect of recent past must necessarily be put down to the formal feature *hy*, and since *y* was tracked down already as the actor-morpheme the recent-past-aspect can only be ascribed to the formal feature *h*.

This conclusion is corroborated by the forms of (b), (c), etc. of the preceding section, all of them converging on this point:

Whenever a verbal form exhibits a root-morpheme and the formal feature *h* preceding the actor-morpheme, there is always involved an action in the recent past.

Hence this formal element *h* is called here: the tense-morpheme of the recent past tense.

It is clear that in the forms *hymathy* "I took" and the like two morphological categories are at work: a temporal and a personal one, expressed by the tense-morpheme and the actor-morpheme resp. However, because both of them are indispensable for describing recent past actions, the resultant categoric forms (strictly speaking the appellation "bi-categoric forms" would suit them better) may be named after either of them. For practical reasons, namely in view of imminent ambiguity, the categoric forms described above are termed here "near past" forms, and the whole series of them is called: the *n e a r p a s t t e n s e* category.

Its characteristics are summarized here thus:
 formally: root-morpheme and tense-morpheme *h* preceding the actor-morpheme (*y, en, e, o, ep, a*);
 semantically: the information that the action was performed in the recent past (by 1st p. sg., 2nd p. sg. etc.).

What exactly is 'near past' cannot be stated definitely; roughly it is the time between, say, a minute ago and several months ago, provided that the action can be localized clearly in chronological perspective.

Use.

In everyday speech this near tense category is more often heard than any other category. It functions in those situations in which other languages use a present tense category, provided that the action is a "fact", not a process. It is not used for past actions which cannot be 'localized clearly in chronological perspective', i.e. for processes in the past, for individual or cultural habits, for actions or events which could have happened but in fact did not etc.

§ 8. The category of the remote past tense

Sometimes, but not as often as the forms of the near past tense category, forms are found like:

<i>balhyky</i>		"I cut (long ago)"
<i>wakanhyky</i>		"I took (long ago)"
<i>jokothyky</i>		"I said (long ago)"
<i>hymathyky</i>		"I hid (long ago)";
cp	<i>baln</i>	"to cut"
	<i>wakan</i>	"to take"
	<i>jokosin</i>	"to say"
	<i>hymasin</i>	"to hide".

Comparing these forms with the infinitive-forms, one sees that a bi-valent piece of information seems inherent to them, viz a piece of information about who performed the action, and one about the time at which the action was performed. And this shift from "most unspecified meaning" towards a bi-valent meaning parallels the shift from morpheme *m* (of the infinitive category) towards the formal element *hyky*, in other words: the formal element *hyky* appears to be responsible for the bi-valent modification of the lexical meaning.

In order to detect which part, if any, is played in the formal shape by the two semantic aspects, the same procedure as in the preceding section will be adopted here, viz.

first (sub A) the temporal aspect will be taken as the stable element, and the actor-aspect as the variable,
 next (sub B) the actor-aspect will be taken as the stable factor and the temporal aspect as the variable.

A.

<i>balhyky</i>	"I cut (long ago)",
<i>balheken</i>	"you cut (long ago)",
<i>balhikhe</i>	"he (she, it) cut (long ago)",
<i>balhuku</i>	"we cut (long ago)",
<i>balhikip</i>	"you (pl) cut (long ago)",
<i>balhukha</i>	"they cut (long ago)".

Opposition of these forms to the category of the infinitive *baln* shows that the root-morpheme is *bal*, hence the double modification of the lexical meaning must be put down to the formal elements *hyky*, *heken*, *hikhe*, etc.

These formal elements have in common the formal element *h* and the semantic aspect: action took place in the remote past. Therefore,

taking these forms in their own right one might assign the rôle of tense-morpheme to the formal element *h* and that of actor-morpheme to *yky*, *eken*, *ikhe*, etc

But then there is no categoric (temporal) opposition between forms describing a near past tense and those describing a remote past tense, whereas a new set of actor-morphemes is indispensable.

As thus this procedure proves unpromising, the second procedure proposed must be applied, as will be done next.

B. By varying the temporal aspect, with the actor-aspect as the stable factor, one can make oppositions of:

<i>balhyky</i>	“I cut (long ago)” versus
<i>balhy</i>	“I cut recently”, or.
<i>balheken</i>	“you cut (long ago)” versus
<i>balhen</i>	“you cut (recently)” etc.

Seen in the light of this opposition the first form (*balhyky*) might be analysed in this way root-morpheme, followed by tense-morpheme hV^hk preceding the actor-morpheme of § 6, in which V^h stands for: vowel harmonising with the actor-morpheme.

Now turning to the form for 2nd p sg *balheken* one finds that the tentative formula ‘tense-morpheme hV^hk preceding the actor-morpheme’ suits the 2nd p sg. form as well

However, when bringing other actors into the field, this tentative formula hV^hk apparently needs modification.

In order to get further insight into the structure of these forms a combination of the two procedures seems advisable, hence in the following synopsis the forms will be arranged along horizontal lines with the temporal aspect as the variable factor, and along vertical lines with the actor-aspect as the variable:

(1)	“long ago”	(2)	“recently”
<i>balhyky</i>	“I cut”	<i>balhy</i>	“I cut”
<i>balheken</i>	“you cut”	<i>balhen</i>	“you cut”
<i>balhakhe</i>	“he cut”	<i>balhe</i>	“he cut”
<i>balhuku</i>	“we cut”	<i>balho</i>	“we cut”
<i>balhukip</i>	“you cut”	<i>balhep</i>	“you cut”
<i>balhukha</i>	“they cut”	<i>balha</i>	“they cut”

Comparison of these forms brings to light:

- a. that in the remote past tense forms the formal element *k* is always present, whatever its rôle may be;
- b. that there is a remarkable vowel-harmony in four out of the six forms;
- c. that the harmonising vowels show some resemblance to the actor-morphemes of § 6;
- d. that, even where the actor-morphemes differ from those of § 6 (viz. in 1st and 2nd p. pl.), phonetically adjacent sounds are involved: high close vowels *u* and *i* replacing the (expected) mid vowels *o* and *e* resp.

Although an entire description of these remote past tense forms with the aid of the actor-morphemes of § 6 apparently cannot be realized, the resemblance of the forms sub 1) above with those sub 2) is too great to neglect it completely. Moreover the stable and predictable connection between these forms and a certain semantic content are proof that a categoric procedure is involved here.

Therefore the most satisfying description of these remote past tense forms seems to be the formula:

the remote past tense of a verb is analysable into:
 its root-morpheme, followed by
 the remote past tense morpheme, and
 the actor-morpheme.

In this formula by 'remote past tense morpheme' is meant:

hV^hk for 1st and 2nd p. sg. and pl. actor,
hikh for 3rd p. sg. actor, and
hukh for 3rd p. pl. actor, whereas

by 'actor-morphemes' is meant:

the actor-morphemes of § 6 with the exception that for 1st p. pl. and 2nd p. pl. the mid vowels (*o* and *e*) are replaced by high close vowels (*u* and *i* resp.).

Remark.

We are not concerned here with the problem *why* 3rd p. sg. and pl. tense-morphemes are *hikh* and *hukh* resp., and not **hek* and **hak* as one would expect. At most one can oppose these forms to near future tense and apophonic near future tense categories, thus:

balhikhe "3rd p. sg. cut (long ago)"
balhukha "3rd p. pl. cut (long ago)",

and:

balikin "sg. actor will cut"
balukun "pl. actor will cut",

but this material is too scanty to speak about a "number-morpheme" or "singular" and "plural" categories.¹³

Use.

When seeing how this category is used we get the impression that the description above is inadequate: this category is used namely for actions which took place in a remote *and* indefinite past; with 'indefinite'-ness is meant here that the action described cannot be placed clearly in chronological perspective. In this sense this category can more or less be compared with the indefinite future tense category. As soon as an action can be localized clearly in a chronological perspective, it conflicts with the 'indefinite' character of the remote past tense category and so is expressed with the near past tense category, even if it took place a long time, say two years, ago. This remote past tense category is virtually only used in narrating the exploits of the ancestors, old historical events, tribal traditions, myths, etc.

§ 9. The category of the habitual aspect

To the categories discussed above can be opposed forms like:

balhytek "I am used to cut"; infinitive: *balin*
hymathytek "I am used to hide"; infin. *hymasın*
gakalhytek "I am used to cleave"; infin. *gakalin*
wakanhytek "I am used to take"; infin. *wakanin*.

These forms bear a categoric character: all verb-forms which have *hytek* following the root-morpheme have as their common semantic feature the information that the speaker is in the habit of performing the action of the root-morpheme.

Apparently two different semantic moments are involved: one concerning the habitual character of the action, and one about the actor.

Now treating the habit-moment as a stable element and the actor-moment as a variable one, we get this series of forms:

¹³ Lexically *i* and *u* sometimes are free variants, cp.: *hunikat* and *hunukat* "different", *jipalin* and *jupalin* "to light (a fire)", *musalin* and *musalin* "to demolish", but these phenomena have no categoric character, as far as is known.

<i>balhytek</i>	"It is my custom to cut"
<i>balhettek</i>	"It is your custom to cut"
<i>balhetek</i>	"It is his custom to cut"
<i>balhotek</i>	"It is our custom to cut"
<i>balheseþ</i>	"It is your custom to cut"
<i>balhatek</i>	"It is their custom to cut"

Four out of these six forms at least have a similar shape: *hVtek*, in which *V* stands for a vowel.

When now opposing these four forms to the corresponding forms of near past tense category:

<i>balhy</i>	"I cut (recently)",
<i>balhe</i>	"he cut (recently)",
<i>balho</i>	"we cut (recently)", and
<i>balha</i>	"they cut (recently)",

one is struck by the fact that the actor-morphemes in the near past tense forms correspond to the vowels in the formula *hVtek*.

Extending the comparison to the 2nd p. sg., and applying a morphological assumption (viz. assimilation of *n* of the following *t*), we find that also the form for 2nd p. sg. fits the description *hVtek*.

The forms for 2nd p. pl., recognizable by the formal element *heseþ*, might be characterized by the formula: aspect-morpheme *hes* preceding the actor-morpheme.

Thus this habitual aspect category is characterized:

formally by aspect-morphemes *hVtek* or *hesV* in an obligatory distribution (*V* standing for the actor-morpheme of § 6);
semantically by the information that the actor is in the habit of performing the action presented by the root-morpheme.

Use.

This category is used more frequently than is suggested by the translations, given above.

Thus is sentences like: "In the afternoon we roast sweet potatoes" this category is obligatory:

mo eilegen hybyty wetathotek

(sun eyes potatoes we-are-used-to-roast)

(*mo eilegen*: that time of the day that the sun *-mo-* shines in one's eyes *-eilegen*)

For strictly individual habits this category is not used; instead one uses the idiosyncratic category (§ 36). With 'strictly individual habits' are meant here those habits and idiosyncrasies which are not in accordance with cultural habits. This needs some elucidation: that a boy of 18 years of age has the habit of sitting in a watch-tower day by day is not idiosyncratic, because culturally this can be expected, but that a boy of 18 years is the cook of a white family is in contradiction to the scanty specialization of the culture; it is these cases which are here called 'idiosyncratic'.¹⁴

§ 10. The category of the perfect past tense

The forms:

<i>balhytik</i>	"(after) I have (had) finished cutting"
	cp. <i>balin</i> "to cut"
<i>gakalhytik</i>	"(after) I have (had) finished cleaving"
	cp. <i>gakalin</i> "to cleave"
<i>jokothytik</i>	"(after) I have (had) finished saying"
	cp. <i>jokosin</i> "to say"
<i>jipalhytik</i>	"(after) I have (had) finished lighting"
	cp. <i>jipalin</i> "to light",

and a large number of comparable forms all show a typical connection between the formal element *hytik* and the semantic content that the speaker has or had finished the action of the root-morpheme.

The same *mutatis mutandis* can be said about forms like:

<i>balhettik</i>	"(after) you had finished cutting",
<i>gakalhettik</i>	"(after) you had finished cleaving",
<i>jokothettik</i>	"(after) you had finished saying", or
<i>jipalhettik</i>	"(after) you had finished lighting",

where the formal element *hettik* is typically linked to the information that the action of the root-morpheme is (or was) over, and was performed by the addressee of the utterance.

¹⁴ Although we are not concerned here principally with problems of information-value, a passing remark may be made on the semantic contents of the habitual aspect category. In this category the action described is culturally expectable and probable; hence in this category the total information centres more around the actor, whereas in the idiosyncratic category (to be discussed later) more attention is paid to the action deviating from the cultural pattern than to the actor.

In how far the actor-aspect and in how far the temporal aspect are responsible for these elements *hytik* and *hettik* is not clear, nor is it cleared up when other actor-forms are taken into account:

<i>balhesik</i>	"(after) he had finished cutting",
<i>balhosik</i>	"(after) we had finished cutting",
<i>balhesip</i>	"(after) you had finished cutting",
<i>balhasik</i>	"(after) they had finished cutting".

Nevertheless these forms bear a categoric character: whenever the root-morpheme of a verb is followed by e.g. *hytik*, the action of the lexical meaning is ascribed to the speaker and took place — and completely so, at that — in the past.

Thus because, as is clear, the actor-aspect as the variable proves rather disappointing for a further analysis, perhaps light will be thrown on this category when the actor-moment is the stable factor, and the temporal moment is varied.

Opposition of the forms *balhytik*, *gakalhytik* etc.

versus infinitive:	<i>balin</i> ,
near future:	<i>balikin</i> , or
indefinite future:	<i>balisikin</i>

proves hardly useful, but when opposed to the near past tense category they show a point of contact:

<i>balhytik</i>	"(after) I had finished cutting" vs.
<i>balhy</i>	"I cut (in the recent past)"
<i>gakalhytik</i>	"(after) I had finished cleaving" vs.
<i>gakalhy</i>	"I cleaved (recently)".

Scrutinizing these forms, and other comparable sets of forms, and always with comparable semantic features at that, one is inclined to consider the formal element *hytik* as a tense-morpheme *hVtik*, in which *V* is the infix actor-morpheme.

This supposition is corroborated when the forms for 2nd p. sg. are compared in the same manner:

<i>balhettik</i>	"(after) you had finished cutting" vs.
<i>balhen</i>	"you cut (recently)";
<i>gakalhettik</i>	"(after) you had finished cleaving" vs.
<i>gakalhen</i>	"you cut (recently)",

in which case once again the assumption must be made that *n* assimilates to the following *t*.¹⁵

So far the formula *hVtik* meets the demands of a tense-morpheme.

Proceeding, however, to the other actor-forms one is at a loss; there the formula for the tense-morpheme should be *hVsik*, viz. in:

3rd p. sg.	<i>balhesik</i>
1st p. pl.	<i>balhosik</i>
3rd p. pl.	<i>balhasik,</i>

but even this formula falls short with 2nd p. pl.:

balhesip,

where something like a formal element *si* is infixes in the actor-morpheme *ep* (§ 6).

No rules are known governing the distribution of the two varieties *hVtik* and *hVsik*, nor why a still different formula is used with 2nd p. pl. So until further insight is gained, one best had consider these 'tense-morphemes' as unexplained but obligatory facts.

Thus this category can be characterized:

f o r m a l l y by the tense-morphemes *hVtik*, *hVsik*, and *hesip* in a certain obligatory distribution following the root-morpheme (*V* standing for the actor-morpheme);

s e m a n t i c a l l y by the information that the action of the root-morpheme has or had been performed completely, so much so that it can be taken as a rounded-off reference-point for another action.

Use.

This category is never used, it seems,¹⁶ in independent clauses like: "I have stopped cleaving fire-wood". It is used only — and nearly always with conjunctions at that — in dependent clauses like: "After I had stopped chopping fire-wood, I cooked sweet potatoes". Here the action in the perfect past tense is the 'rounded-off reference-point' after which the action of the main clause takes place. E.g.:

¹⁵ This is even a probable assumption because the phonetic field of prenasalised dentals belongs to the domain of the phoneme *d*, which in certain dialects is prenasalized: [nd] or [nɪ].

¹⁶ During his research the writer heard this category used independently only twice, not in current everyday speech, but in the artificial setting of language research. The information was therefore laid aside as being suspect.

haly hvgalhytik-he, hybyty isathy

(fire-wood having-chopped, potatoes I cooked)

in which *he* is a conjunction ("after").

Conjunctions as a rule are not used when the action of the main clause is "to go" or "to come", so in sentences like:

haly hvgalhytik wahy

(fire-wood having-chopped I-come), i.e.:

"I come back from chopping fire-wood".

Remarks.

1. A typical and frequently used combination of the two verbs "to go" and "to come", one of them in the perfect past tense, is found in the expressions:

lahytik wahy "having gone I come", and

wahytik lahy "having come I go", i.e.:

"I come back" and "I go back" resp.

2. We are not concerned here with the problem why this category is not used independently, although it seems satisfactorily equipped for that function.

§ 11. The perfect past habitual aspect category

Opposed to the different categories found so far, are those forms which semantically deal with habitual actions which are represented as completed, e.g.:

wetathytesik "(after) I have (had) finished my usual roasting"

hesi jukulhytesik "(after) I have (had) smeared myself (as usual) with mud"

belajy balhytesik "(after) I have (had) terminated the mourning period (in accordance with cultural habit)"

gakalhytesik "(after) I have (had) finished (my usual) cleaving"

cf:

wetasin "to roast"

jukulin "to smear oneself", "to camouflage oneself"

hesi "mud"

balin "to cut", "to cut off"

belajy "mourning"

gakalin "to cleave"

Always when these forms and suchlike forms of other verbs are found, they have a similar shape (root-morpheme, followed by the formal element *hytesik*) and common semantic features: an actor-aspect of 1st p. sg., a habitual aspect, and a perfective aspect, in other words: the information that the speaker performed the habitual action completely.

Therefore there is no doubt about the categoric character of these forms, the more so because they are differentiated from other forms by precisely the same formal and semantic features.

Whenever the formal element *hytesik* is changed, then always at least one of the semantic aspects changes too. E.g. when *hytesik* in *gakalhytesik* "(after) I had finished (my usual) cleaving" changes into *hettesik* the resulting form *gakalhettesik* has a different actor-aspect "(after) you had finished (your usual) cleaving".

When *hytesik* changes into *hytek* in e.g. *balhytek* "It is my custom to cut", the perfective aspect of *balhytesik* ("I finished my usual cutting") has disappeared; if the latter form changes into *balhytik* the habit-aspect is missing: "I finished cutting".

Therefore one is forced to the conclusion that all three of the semantic aspects somehow betray their presence in the morphological make-up of the formal element *hytesik*. Now the question arises: which semantic moment is responsible for which formal element.

A further factor which has to be taken into account when dealing with these forms is their syntactic valence. The syntactic valence of the perfect past habitual aspect category is rather restricted: it seldom occurs in independent clauses; in this respect it resembles the perfect past tense category, which probably never appears in independent clauses (cp. § 10, sub "Use").

In order to trace what is morphologically characteristic in these perfect past habitual forms, all three semantic aspects must be opposed to forms which lack these aspects; this is done by taking each of them one at a time as a variable and the other two as stable factors. For the sake of clarity here is a synopsis of the different oppositional forms, arranged

horizontally: to the right with the perfective aspect as the variable,
to the left with the habitual aspect as the variable, and
vertically: with the actor-aspect as the variable factor.

Perfect past tense categ. (valence restricted)	Perfect past hab. asp. cat. (valence restricted)	Habitual asp. category (valence unrestricted)
<i>balhytik</i>	<i>balhytesik</i>	<i>balhytek</i>

<i>balhettik</i>	<i>balhettesik</i>	<i>balhettek</i>
<i>balhesik</i>	<i>balhetesik</i>	<i>balhetek</i>
<i>balhosik</i>	<i>balhotesik</i>	<i>balhotek</i>
<i>balhesip</i>	<i>balhetesip</i>	<i>balhesep</i>
<i>balhasik</i>	<i>balhatesik</i>	<i>balhatek</i>

A. Now opposing the forms under discussion (the middle series) to the forms at their left (i.e. with the habitual aspect as the variable factor), the shift in meaning is accompanied by a shift in form: as soon as the 'habit' is involved, a formal element **es*, infix in the tense-morpheme, makes its appearance.

When scrutinizing the other actor-forms as opposed to their counterparts in the perfect past tense (on their left), the assumption of formal element **es* holds good for 2nd p. sg., but for the other actors a morphological rule must be postulated that of two successive *s*'s the first one is replaced by *t*:

**balhet-es-ik* for **balhes-es-ik*
**balhot-es-ik* for **balhos-es-ik*.

If the assumption of an infix **es* in the perfect past tense category is maintained, one has to account for the given morphological assumption for which there is (synchronically) no support in other fields of the language spoken by the Mugogo Dani's.

Seen in the light of syntactic valence, the category under discussion is more valent than the perfect past tense: the former can function in independent clauses, the latter probably can not.

B. Opposing the perfect past habitual forms to the habitual aspect category (on the right-hand side), and thus bringing the perfective moment into discussion, we find the form *balhytesik* versus *balhytek*. In this view the perfective aspect is somehow linked with the appearance of the formal element *si*, infix before the final consonant. This assumption even holds when the actor-aspect is taken into account:

1st p. sg.	<i>balhyte-si-k</i>	vs.	<i>balhytek</i>
2nd p. sg.	<i>balhette-si-k</i>	vs.	<i>balhettek</i>
3rd p. sg.	<i>balhete-si-k</i>	vs.	<i>balhetek</i>
1st p. pl.	<i>balhote-si-k</i>	vs.	<i>balhotek</i>
3rd p. pl.	<i>balhate-si-k</i>	vs.	<i>balhatek</i>

Now the question must be solved as to what exactly is the morphological make-up of these perfect past habitual aspect forms: must they be

considered as a categoric modification of the perfect past tense category or of the habitual aspect category? In other words: are these forms fundamentally perfect past tense forms with a modification (a categoric one) of the meaning, parallel with the formal element **es*, or are they fundamentally forms of the habitual aspect category, categorically modified:

formally by the infix *si*,
and semantically by a perfective moment?

The last view is maintained here. Conclusive proof for this standpoint cannot be given, but here are some arguments to support the view:

1. a) Often especially when an adjunct of time occurs in the sentence (*magum, augene, hakaneat* etc.: "formerly") instead of perfect past habitual forms, corresponding forms of the habitual aspect category are used. So the habitual aspect seems to be more relevant in the opinion of the Dani than the perfective aspect.

b) When speaking with a non-Dani the Dani's are inclined to simplify these forms by circumscribing them with the aid of habitual aspect forms, followed by the word *atat* "finished". On the other hand they never circumscribe these forms with the aid of perfect past tense forms, accompanied by some word for "usually" (e.g.: *uthokat*). Here also the Dani's appear to attach more importance to the habitual aspect than to the perfective aspect.

2. Abstractly speaking it seems not probable that a category, when modified by a super-imposed category, should have a greater valence than it has by itself. For if perfect habitual forms are a modification of perfect past tense forms, the valence of the latter is enlarged by a modification. On the other hand, if the perfect past habitual forms are a modification (and specification) of habitual aspect forms, the valence of the latter is restricted by the modification; and this phenomenon, abstractly speaking, is not improbable.

Thus the perfect past habitual aspect category is characterized here: formally by the morpheme *si* infixed before the final consonant in the aspect-morpheme of the habitual aspect category, while in 2nd p. pl. the *s* of the aspect-morpheme is replaced by *t*; ¹⁷

¹⁷ This replacement of the first of two successive consonants *s* by *t* synchronically has to be accepted as a fact for Mugogo-Dani, neither the reason why, nor the choice of *t* in particular are pertinent to this morphological description. This fact however becomes more or less understandable when seen from comparative and diachronic standpoint.

The disharmonisation of the two successive sibilants may be a matter of

semantically by the information that the habitual action was performed completely.

Use.

This category of perfect past habitual aspect is seldom used; if it is, then in most cases it functions in dependent clauses, such as:

"After I had finished (my usual) roasting (of) sweet potatoes, I lay down to sleep":

hybyty wetathytesik-he nokoe yky.

In such dependent clauses a conjunction is nearly always used (*he*, or *ma*); if however the verb of the main clause is "to go" or "to come" (*lan* or *wesin* resp.) a conjunction as a rule is not used. E.g.:

"After I had finished (my usual) roasting (of) sweet potatoes, I went home":

hybyty wetathytesik vma lahy.

§ 12. The progressive aspect category

Opposed to the different forms discussed so far are forms of this shape:

<i>wetathylahy</i>	"I am roasting"	cp. <i>wetasin</i>	"to roast"
<i>wakanhylahy</i>	"I am taking"	cp. <i>wakanin</i>	"to take"
<i>sopalhylahy</i>	"I am washing"	cp. <i>sopalin</i>	"to wash"
<i>lipilhylahy</i>	"I am peeling"	cp. <i>lipilin</i>	"to peel"

When a root-morpheme is followed by the formal element *hylahy* the resulting form always contains the information that the speaker is at work, doing the action of the root-morpheme. Apparently these forms are members of a category. But because the information that 'the speaker is at work, performing the action of the root-morpheme' is strictly speaking double-sided, viz. centring around the identity of the actor and centring around the state of progress of the action of the root-

euphony Why a *t* was chosen as the euphonic substitute of *s* can perhaps be understood when we take into account the fact that proto-Dani (in Bromley's reconstruction cf Bromley o.c. p. 7) had no sibilant *s*. In those Dani-dialects which still have no *s* one often finds *t* where Mugogo has *s*. Cf.

Western Dani	Mugogo Dani	
<i>atuk</i>	<i>asuk</i>	"ear"
<i>tu</i>	<i>sv</i>	"door"

Thus this *t* does not appear out of the blue, but may be considered as a remainder of an earlier stage of the language.

morpheme, it seems legitimate to inquire whether the connection between the speaker and such a state of progress is an intrinsic one, in other words: if a connection can be made between the hearer or another actor and such and such progress of the action. This apparently is the case.

If the addressee is 'at work, performing the action of the root-morpheme', forms are found of this shape:

<i>wetathylaken</i>	"you are roasting"
<i>wakanhylaken</i>	"you are taking"
<i>sopalhylaken</i>	"you are washing"
<i>lipilhylaken</i>	"you are peeling"

When confronting both series of forms with the actor-morphemes of § 6, there are points of resemblance namely the actor-morphemes *y* and *en*, but when opposing them to the forms of the near past tense category, a difference appears: 1st p sg has an *h* preceding the actor-morpheme, whereas 2nd sg. has a *k*.

Compare:

near past tense		progress. aspect forms	
<i>wetathy</i>	"I roasted"	<i>wetathylahy</i>	"I am roasting"
<i>wetathen</i>	"you roasted"	<i>wetathylaken</i>	"you are roasting"

However, before entering upon the question as to how the different actors affect the morphological appearance of this category, it seems advisable to explore first the rôle that is played formally by what to all appearances is an aspect-morpheme.

When comparing:

<i>wetathylahy</i>	"I am roasting"
<i>wetathylaken</i>	"you are roasting"
<i>wetathylako</i>	"we are roasting"
<i>wetathylakep</i>	"you (pl.) are roasting"

one gets the impression that the stable semantic aspect of action-in-progress is accompanied formally by a stable element *hyla* + velar fricative.

However, when other forms are taken into consideration which are apparently related to these forms, viz. forms of the near past progressive aspect category (to be discussed later, in § 14), the formula *hyla* + velar fricative proves inadequate; compare:

<i>wetathylako</i>	"we are roasting", and
<i>wetathylakep</i>	"you (pl.) are roasting"

with:
wetathylauku "we were roasting", and
wetathylaik:p "you (pl.) were roasting".

Therefore a more satisfying formulation seems to be: the aspect-morpheme of the progressive aspect category is: *hyla-S*, in which *S* stands for "vowel-separator".

This vowel-separator is:

between *a* and *y* the velar fricative *h*;
 between *a* and *e* or *o* the velar fricative *k*;
 between *a* and *i* or *u* zero.¹⁸

With the aid of this formula 'aspect-morpheme is *hyla-S*' the forms *wetathylahy* (*wakanhylaken* etc.) can be analysed to enclose:

the root-morpheme *wetas* (resp. *wakan* etc.),
 the aspect-morpheme *hyla-S*, and
 the actor-morpheme *y* (resp. *en* etc.)

The analysis, given above, proves correct for 1st and 2nd p. pl., too:

wetathylako "we are roasting"
wakanhylako "we are taking"
wetathylakep "you are roasting"
wakanhylakep "you are taking"

Summarising this category, one may therefore characterize it:
 formally by (root-morpheme followed by) aspect-morpheme *hyla-S*,
 preceding the actor-morphemes of 1st and 2nd p. sg. and pl.;
 semantically by the information that the actor is still at work
 performing the action of the root-morpheme.

Use.

This category, though frequently used, is not used with actor-morphemes of 3rd p. sg. or pl. Remarkably enough its use practically coincides with the use of the English "progressive tense".

Together with near past tense category (§ 7) this progressive aspect category covers roughly all those situations which in other languages are expressed by "present tense".

¹⁸ This coincides with the tongue-position of the vowels:
 before mid vowels *e* and *o*: *k*
 before high open vowel *y*: *h*
 before high close vowels *i* and *u*: zero

Remark.

This category should not be mixed up with other categories to be treated later, which bear a great resemblance to it, viz. "medial voice" and part of "composite verbs" (§§ 46, 42).

Compare e.g.:

<i>hymathylahy</i>	"I am hiding (something)": progress.
<i>hymatlahy</i>	"I get (got) lost": medial voice
<i>hymasi-lahy</i>	"I go and hide": composite verb.

§ 13. Progressive aspect 3rd person category

Opposing all forms discussed until now, are forms like these:

<i>wetatiako</i>	"he is roasting"	(<i>wetasin</i>	"to roast")
<i>wakaniako</i>	"he is taking"	(<i>wakanin</i>	"to take")
<i>hymatiako</i>	"he is hiding"	(<i>hymasın</i>	"to hide")
<i>jele japiako</i>	"he is playing"	(<i>jele japın</i>	"to play")

and like:

<i>wetatiokoei</i>	"they are roasting"
<i>wakaniokoei</i>	"they are taking"
<i>hymatiokoei</i>	"they are hiding"
<i>jele japiokoei</i>	"they are playing"

That these forms are members of a category need not be doubted: whenever a verbal form of a root-morpheme is found followed by the formal elements *iako* or *iokoei*, then the lexical meaning of the root-morpheme is always specified in such a way that its action is ascribed to a 3rd p. actor, singular or plural resp., and the action is represented as still continuing.

So, semantically, these forms resemble those of the preceding section, only the actor-aspect being different.

As to the morphological equipment of this category or these categories one is at a loss: there are no points of contact with other comparable forms (e.g. such as those of the preceding section) or with the actor-morphemes of the persons involved (*e* and *a* resp.); we cannot even decide whether there are morphological elements responsible for the aspectual moment and for the actor-moment.

Furthermore we even cannot be sure whether the *i* of *iako* and *iokoei* pertains to the root-morpheme or to the aspect/actor-morphemes; both views can be defended. Moreover, because the question cannot be decided whether there is a common aspect-morpheme, the question can be posed

as to whether one or two categories are involved; here too both views can be defended: the formal elements *iako* (or *ako*) and *iokoei* (or *okoei*) are disparate enough to legitimise the label "category" for each of them. On practical ground (because of their limited scope) they will be treated here as one category.

Whatever their morphological make-up, one has to accept these forms, which are beyond doubt categoric, which are productive, and which block the progressive aspect category of the preceding paragraph.

Assuming that the phoneme *i* of the formal elements *iako* and *iokoei* pertains to the aspect/actor-morphemes (in this case no 'stem' of root-morpheme-plus-*i* need be postulated), this category may be characterised:

formally by the aspect/actor-morphemes *iako* and *iokoei*, following the root-morpheme;
 semantically by the information that the actor or actors is (are) at work, performing the action of the lexical meaning of the root-morpheme.

Use.

This category is used, taking into account the different actors, in all those cases in which the progressive aspect category is used (§ 12).

Remark.

Formation of 1st and 2nd person forms of this category is blocked by the progressive aspect forms of the preceding section, whereas progressive aspect forms of that section for 3rd p. actors are blocked by the category under discussion. So the categories of § 12 and § 13 are mutually blockading.

§ 14. Near past progressive aspect category

The forms:

wetathylahyky "I was roasting (recently)"
wakanhylahyky "I was taking (recently)"
lipihylahyky "I was peeling (recently)"
munenhylahyky "I was delaying (recently)",

and other comparable forms, are opposed to all other forms found until now.

They have a similar shape (all exhibiting a root-morpheme, followed by formal element *hylahyky*) and common features (all of them telling that the speaker was at work, performing the action of the root-morpheme).

So the conclusion is legitimate that they are members of a category, which henceforward will be called the "near past progressive aspect category".

The semantic feature comprises a piece of three-fold information: one about the time (viz. the recent past), one about the actor (viz. the speaker), and one about the stage of perfection of the action (viz. still in progress).

In order to discover whether a three-fold formal make-up goes parallel with this three-fold semantic content these forms must be opposed to other forms which lack these semantic aspects.

a. By differing the actor (and restricting ourselves to one verb, viz. *wetasin* "to roast") we find mutually opposing these forms:

<i>wetathylahyky</i>	"I was roasting (recently)"
<i>wetathylakeken</i>	"you were roasting"
<i>wetathylakhe</i>	"he was roasting"
<i>wetathylauku</i>	"we were roasting"
<i>wetathylakip</i>	"you (pl.) were roasting"
<i>wetathylaukha</i>	"they were roasting"

What was said above about the categoric character of *wetathylahyky* holds good for the other forms (*wetathylakeken* etc.) too.

b. By differentiating the semantic moment of time (tense) and having the progressive aspect and the actor-aspect as stable factors, we can oppose:

<i>wetathylahyky</i>	vs	<i>wetathylahy</i>	"I am roasting"
<i>wetathylakeken</i>	vs	<i>wetathylaken</i>	etc.
<i>wetathylakhe</i>	vs	<i>wetatiako</i>	

(cp. §§ 12, 13)

c. When differentiating (in casu: eliminating) the aspectual moment, but then retaining the same actor and the same time, we find this near past progressive aspect category opposing the near past tense category (§ 7), thus:

<i>wetathylahyky</i>	vs	<i>wetathy</i>	"I roasted"
		likewise:	
<i>wetathylakeken</i>	vs	<i>wetathen</i>	etc.
<i>wetathylakhe</i>	vs	<i>wetathe</i>	
<i>wetathylauku</i>	vs	<i>wetatho</i>	

wetathylaikp vs *wetathēp*
wetathylaukha vs *wetatha*

All these oppositions, however, entail an irksome toiling with actor-, aspect-, and tense-morphemes

At further scrutiny much of the work of investigation has already been done in the sections 12 and 8 (progressive aspect and remote past tense categories resp.).

In § 12 as the aspect-morpheme was found *hyla* + velar fricative (semantic moment 'action still in progress'). That same aspect-morpheme seems present in the forms under discussion now. A common denominator covering the aspect-morpheme of both progressive aspect category and near past progressive aspect category was anticipated in § 12, viz. *hyla-S*, in which *S* ('vowel-separator') is:

k before mid vowels *e* and *o*
h before high open vowel *y*, and
 zero before high close vowels *i* and *u*.

Compare e.g.:

wetathylahy "I am roasting" with:
wetathylahyky "I was roasting",
 or:
wetathylaken "you are roasting" with
wetathylakeken "you were roasting" etc.

When opposing these near past progressive forms not to near past tense, but to remote past tense forms (§ 8), we see a striking (partial) similarity coming to the fore. Compare:

<i>wetathylahyky</i>	<i>wetathyky</i>
<i>wetathylakeken</i>	<i>wetatheken</i>
<i>wetathylaikhe</i>	<i>wetathikhe</i>
<i>wetathylauku</i>	<i>wetathuku</i>
<i>wetathylaikip</i>	<i>wetathikip</i>
<i>wetathylaukha</i>	<i>wetathukha</i>

As the tense-morpheme of remote past tense category was found:
hV^hk for 1st and 2nd p. sg. and pl.,
hikh for 3rd p. sg., and
hukh for 3rd p. pl. actor (in which *V^h* symbolises a vowel harmonising with the vowel of the actor-morpheme).

Except for the initial consonant *h* the same formula would do for the near past progressive forms under discussion.

Therefore the tense-morpheme for near past progressive forms is best formulated:

V^{hk} for 1st and 2nd p. actors,

ikh for 3rd p. sg. actor, and

ukh for 3rd p. pl. actor (*V^h* again standing for a vowel identical with the vowel of the actor-morpheme of § 6).

Combining all that was found one can analyse near past tense aspect forms in:

root-morpheme, followed by
 aspect-morpheme *hyla-S*, followed by
 tense-morpheme *V^{hk}*, *ikh*, or *ukh*, followed by actor-morpheme.

Example of this analysis:

jele japhylakeken "you (sg) were playing"

(cp. *jele japin* "to play")

root-morpheme: (*jele*) *jap*

aspect-morpheme: *hylak*

tense-morpheme: *ek*

actor-morpheme: *en*

Use.

This category is used for actions in the near past the progressive character of which is stressed. If this progressive character of the action attracts no special attention, the action as a rule is expressed by the near past tense category.

Remark.

When comparing near past tense and remote past tense forms, e.g.:

hymathy and *hymathyky*

with progressive aspect and near past progressive aspect forms, e.g.:

hymathylahy and *hymathylahyky*

we might be inclined to bring a direct proportion between them, as if a shift in time had taken place. This assumption, however, is erroneous, because remote past tense comprises a semantic aspect of 'indefiniteness' which is absent in its supposed counterpart, the near past progressive aspect form.

§ 15. The perfect past progressive aspect category

The forms:

<i>wetathylahykysik</i>	"I have been roasting" or "I had the habit of roasting"
<i>wakanhylahykysik</i>	"I have been taking" or "I had the habit of taking"
<i>sopalhylahykysik</i>	"I have been washing" or "I was in the habit of washing"
<i>munenhylahykysik</i>	"I have been delaying" or "I had the habit of delaying"

and other comparable forms all show similar formal features (root-morpheme followed by the element *lahykysik*) and common semantic features, viz: the action of the root-morpheme was achieved:

- (a) completely,
- (b) by the speaker,
- (c) during a long time or as a habit.

This typical connection of formal and semantic features betrays the existence of a morphological category.

The same can be said about slightly different forms like:

<i>munenhylakekettik</i>	"you have been delaying" or "you had the habit of delaying",
--------------------------	---

which combine the same semantic aspects except that the actor is not the speaker, but the addressee, and about other forms with actor or actors other than the speaker or the addressee: they all are members of a category.

The forms with different actors are:

<i>munenhylahykysik</i>	"I have been delaying" etc.
<i>munenhylakekettik</i>	"you have been delaying" etc.
<i>munenhylaikhesik</i>	"he has been delaying" etc.
<i>munenhylaukusik</i>	"we have been delaying" etc.
<i>munenhylaikisip</i>	"you (pl.) have been delaying"
<i>munenhylaukhasik</i>	"they have been delaying".

These forms may be opposed to all categories, known so far, and opposition to any of them might tell something about the formal equipment in accordance with the different semantic aspects. The most promising opposition, however, is that between these forms on the one hand,

and, on the other hand, perfect past tense forms. In a synopsis both oppositions are given with all persons:

near past progr. (§ 14)	perf. past progr.	perf. past tense (§ 10)
“I was delaying” etc.	“I have been delaying” etc.	“I have finished delaying” etc.
<i>munenhylahyky</i>	<i>munenhylahykysik</i>	<i>munenhytik</i>
<i>munenhylakeken</i>	<i>munenhylakekettik</i>	<i>munenhettik</i>
<i>munenhylakikhe</i>	<i>munenhylakikhesik</i>	<i>munenhesik</i>
<i>munenhylauku</i>	<i>munenhylaukusik</i>	<i>munenhosik</i>
<i>munenhylaikip</i>	<i>munenhylaikisip</i>	<i>munenhesip</i>
<i>munenhylaukha</i>	<i>munenhylaukhasik</i>	<i>munenhasik</i>

At first glance the category under discussion (the middle series) seems to superimpose the categoric procedure of perfect past tense (to the right) on near past progressive (to the left) as a substratum, although there is a difference in 1st p. sg.

From a comparison of both opposed forms the characteristics of the forms under discussion come to the fore, viz.:

f o r m a l l y the forms of near past progressive aspect category, followed by the perfective aspect-morphemes in an obligatory distribution except in 2nd p. pl.¹⁹; in 2nd p. pl.: the forms of near past progressive aspect, followed by the actor-morpheme with the perfective aspect-morpheme *si* infixed before the final consonant of the actor-morpheme;

s e m a n t i c a l l y these forms contain the information that the action represented by the root-morpheme, was performed by such and such an actor in the past during a long time or as a habit, and is now completely over.

Remark.

Although the translations suggest two different semantical entities: ‘action during some time’ and ‘action as a habit’, they come to practically the same thing in most cases.

¹⁹ This distribution is:
sik for 1st p. sg. and pl., and
 for 3rd p. sg. and pl.
tik for 2nd p. sg.

Use.

This category, though productive, is used very infrequently in every day's communication.

For collective habits it gives a description of former, no longer existing, cultural habits, and so has a rather restricted field of application.

For individual habits (former habits, that is) this category seems²⁰ to be used for personal peculiarities which as a habit are not so improbable or unexpected as those 'idiosyncrasies' which were alluded to in § 9 sub "Use".

Anticipating the idiosyncratic category (§ 36), we have here an opposition which confirms this description:

'Abe-omosi' helal nynhukhe nanhukhe wakanhylaikhesik, i.e.:
'Lip-hair' drawing day-by-day used-to-draw, or: "No day went by that 'Mr. Moustache' was not writing".

'Biak-mege' helal wakanho wetek, i.e.:

Biak-man drawing is-always-drawing-and-drawing, or: "The Biak-man is always writing";

(*abe-omosi* "lip-hair", "moustache";

nynhukhe nanhukhe "daily";

helal "engraving", "drawing", "notch";

helal wakanin "to engrave", "to draw")

The fact that the white man and people from Biak (a more advanced island) know the art of writing, is not unknown to the Dani, so the fact that 'Mr. Moustache' (a nick name for the patrol-officer) among his other occupations had the habits of writing daily, was not so astonishing as to rank it as an 'idiosyncrasy'; the Biak-man on the other hand had the habit of writing all day as he was a clerk at the Government Post and that was considered as idiosyncratic.

§ 16. Irreal aspect category

To the forms discussed in the preceding sections can be opposed forms like:

²⁰ This category is used so seldom that not sufficient material could be gathered to justify an unassailable semantic description. Therefore what is said here about 'personal habits' and 'peculiarities' over against 'idiosyncrasies' is more a strong conviction of the writer than a certainty.

<i>hymatle</i>	“I should have hidden”, or “I could have hidden”, or “I might have hidden”, or “Had I only hidden”, or “I had nearly hidden” (but in fact I did not hide) (cp. <i>hymasin</i> “to hide something”)
<i>wakanle</i>	“I should have taken”, or “I could have taken”, or “I might have taken”, or “Had I only taken”, or “I had nearly taken” (but I did not in fact take) (cp. <i>wakanin</i> “to take”)
<i>gakalle</i>	“I should have cloven” etc. (cp. <i>gakalin</i> “to cleave”)
<i>wokotle</i>	“I should have given” etc. (cp. <i>wokosin</i> “to give”)

These forms bear all the characteristics of a morphological category: they always link a similar formal feature (root-morpheme followed by *le*) and a common semantic element (viz. that the speaker should or could or might have performed the action represented by the root-morpheme). They will henceforward be called members of the ‘irreal aspect category’.

Because these forms have a two-fold semantic content (one concerning the identity of the actor, its ‘actor-moment’, and the other concerning the un-realized possibility, desirability etc. of the action, its ‘irreal moment’), it seems legitimate to inquire whether and in how far each of these moments influences the formal make-up of the category.

Comparing first these forms or one of them as a representative with the near past tense category we find the opposition of:

<i>hymatle</i>	“I should have hidden” etc. with:
<i>hymathy</i>	“I hid (recently)”

This opposition still leaves us in the dark: changing one semantic moment we apparently find two formal changes.

Bringing another actor into the field and opposing that to the near past tense form (with the same actor), we find:

<i>hymatlen</i>	“you (sg.) should have hidden” etc. vs.
<i>hymathen</i>	“you hid (recently)”

Here one semantic change goes with one formal change: the formal element *l* is apparently the formal counterpart of the irreal moment in the semantic make-up of the form.

When further scrutinizing forms of the same irreal character but with different actors, we always find this formal element *l* present, following the root-morpheme. The complete paradigm of these forms is:

<i>hymatle</i>	"I should have hidden" etc.
<i>hymatlen</i>	"you (sg) should have hidden" etc.
<i>hymatlep</i>	"he (she) should have hidden" etc.
<i>hymatlo</i>	"we should have hidden" etc.
<i>hymatlep</i>	"you (pl) should have hidden" etc.
<i>hymatlep</i>	"they should have hidden" etc.

("to hide" is always understood here in a transitive sense).

All of these forms are categoric.

Opposing these forms to those of the near past tense, viz :

<i>hymathy</i>	"I hid (recently)"
<i>hymathen</i>	"you hid"
<i>hymathe</i>	"he hid"
<i>hymatho</i>	"we hid"
<i>hymathep</i>	"you hid"
<i>hymatha</i>	"they hid",

we see a partly different set of what are, to all appearances, actor-morphemes coming to the fore

There is no conceivable reason why three out of six actor-morphemes should be different; we merely have to accept the fact that they always follow (for such and such an actor) the irreal aspect-morpheme *l*, and are never found with other categories

Therefore this irreal aspect category is characterized formally by (root-morpheme followed by) irreal aspect-morpheme *l* preceding the actor-morphemes:

<i>e</i>	for 1st p. sg actor,
<i>en</i>	for 2nd p. sg actor,
<i>o</i>	for 1st p. pl. actor,
<i>ep</i>	for 3rd p. sg. and pl. and for 2nd p. pl. actor.

semantically by the information that the action of the root-morpheme was not performed by such and such an actor, but could, or might have been performed, was desired or feared, etc. Sometimes the information concerns an action which is desired, but is not expected to happen.

Use.

This category is used more often than is suggested by the translations of the forms given above. Given a certain intonational and syntactic environment, this category may give expression to different emotions like fear, regret, indignation, satisfaction, relief, desire, etc. E.g.:

<i>hatle. nakajak</i>	“I nearly hurt you, excuse me” (<i>hasin</i> “to hurt you”; <i>nakajak</i> “my first brother”, social address to a male)
<i>wetlen e!</i>	“Oh, if only you had been here!” (<i>wesin</i> “to come”)
<i>woknetlep e!</i>	“Oh, I wish he would give me . . . (but, of course, he will not)” (<i>e!</i> “Oh”, “Ah”)

§ 17. Adhortative aspect categories in general

Dani language has a large variety of forms, all of which betray the desirability or undesirability of a given action, and, as a rule, the person who is desired to perform the action or to abstain from it.

These forms formally set themselves apart from the members of the categories known until now. they have morphemes which, as a rule, combine information about the desirability or undesirability and the number and/or person of actors in an indivisible unity without morphological contact with other categories; they seemingly have apophonies, met nowhere else in the morphology; they have a categoric procedure (comitative aspect) which as such is unique in this language etc.

In order to facilitate the analysis of the different adhortative and prohibitive forms, from time to time an appeal will be made to verbs which ‘behave’ differently, which have e.g. infinitives with final *an*, not *in*, such as:

<i>wetathan</i>	“to roast thoroughly”
<i>woknysan</i>	“to give us”
<i>lakhan</i>	“to make go”.

In anticipation of a fuller treatment of these forms (for the sake of briefness they will be called here “*an*-verbs” for the time being) some of their categories will be called in here to throw light on the adhortative and prohibitive categories to be dealt with here.

Thus the forms:

<i>wetasik</i>	"let me roast", "I must roast"
<i>wakanik</i>	"let me take", "I must take"
<i>balik</i>	"let me cut", "I must cut", and
<i>ik</i>	"let me say", "I must say"

(cp. the respective infinitive forms: *wetasin* "to roast"; *wakanin* "to take"; *balin* "to cut"; *in* "to say"), they all betray a typical connection of similar formal equipment with a common semantic element, so they must be members of a category.

At the present stage of research we have no means of deciding whether there are in the formal equipment of *wetasik* etc. traces of both of the two semantic moments (viz. that the desired actor is the speaker, and that the action is desired).

When turning to *an*-verbs there is a comparable relationship between the 1st p. sg. and the infinitive category. E.g.:

<i>wetasin</i>	"to roast"
<i>wetasik</i>	"let me roast"
<i>wetathan</i>	"to roast thoroughly"
<i>wetathak</i>	"let me roast thoroughly"

Both forms betraying a desirability, as opposed to their respective infinitives, show a formal element *k*, and semantically a self-exhortation of the speaker.

Now opposing *wetasik* "let me roast" to e.g. *wetasinek* "he must roast", one clearly sees that the difference in actor entails a difference in form; hence, somehow, the 1st p. sg. actor must be represented in that formal element *ik*. The form *wetathak* "let me roast thoroughly" has the same semantic content (as opposed to its infinitive "to roast thoroughly"), which is somehow expressed in the formal element *ak*. And, because *ik* of *wetasik* and *ak* of *wetathak* have only the formal element *k* in common, it seems legitimate to assign the double rôle of adhortative aspect-morpheme and actor-morpheme to this *k*, until proof to the contrary is found.

This formal element *k*, however, follows not the root-morpheme, but root-morpheme-plus-*i* and root-morpheme-plus-*a* resp. These 'plus-*i*' and 'plus-*a*' are then not accounted for.

Here a new entity must be introduced: the "stem", by which is meant here: a root-morpheme, modified in such a way that while remaining recognizable as such it is phonologically adapted for affixation of other morphemes.

The rôle of 'plus-*i*' and 'plus-*a*', in the forms given, is then: to adapt

the root-morphemes *wetas* and *wetath* resp. for affixation of the actor/aspect-morpheme *k*.

The reasons for assuming this entity, the 'stem', are:

1. The formal element *k* can function as the actor-morpheme and at the same time as the adhortative aspect-morpheme, because no resembling forms are found with other or similar semantic content, so that no ambiguity can occur; therefore the 'plus-*i*' and 'plus-*a*' cited above, can be dispensed with as potential aspect-morphemes.

2. If these 'plus-*i*' and 'plus-*a*' in fact were adhortative aspect-morphemes why then are there two different morphemes for one semantic moment: namely that the action must be performed?

3. a. Some means is indispensable for adapting *k* to the root-morpheme, as the consonant-sequences *s-k* (or *t-k*), *l-k*, *n-k* etc. do not occur.²¹

b. Where a phonologically acceptable consonant sequence occurs, the 'plus-*i*' at least may be absent. This is the case in the forms *wetatnek* etc., free variants of *wetasinek* etc., which both express the fact that the action must be performed (by a 3rd p.); in this form *wetatnek* the adhortative aspect is expressed without the vowel *i*; so this *i* cannot be the aspect-morpheme.

c. There are even instances (with 2nd p. actor) in which there must be a latent form **wetatn* (without an *i*), which comes to life as soon as it is rendered phonologically acceptable, that is, when it is followed by future tense-morpheme *o* or plural number-morpheme *i*, thus:

**wetatn* (non-existent) "you must roast"
wetatno "you must roast later"
wetatni "you (pl) must roast"²²

Therefore it seems legitimate to assume the existence of a 'stem', made up of the root-morpheme, followed by the same vowel as that of the infinitive-morpheme.

²¹ cf. Bromley, o.c. p. 64.

²² Here is a small difference between Mugogo Dani and Lower Grand Valley Dani (Bromley, o.c. p. 64): in Mugogo any stop may occur followed by any liquid (with preference for the homorganic liquid); it is remarkable that the Mugogo counterparts of Lower Grand Valley stop followed by liquid often show different, freely variable, stops followed by liquid. Thus the examples given by Bromley (o.c. p. 64) are represented in Mugogo as follows:

L.G.V.		Mugogo
<i>a'mouk</i>	"his liking"	<i>a'mouk, a'mu, apmouk, apmv, akmouk, akmv</i>
<i>sa'ne</i>	"grass fire"	<i>hesakne, osakne</i> (other dialects having <i>hetakne</i>),
<i>so'le</i>	"smoke"	<i>so'le, sokle, sotle.</i>

Further compare: *hetnak* . . ., *hetnak* . . ., or: ---
hetlak . . ., *hetlak* . . ., i.e.: "on the one hand . . .,
on the other hand . . .".

§ 18. The category of the 1st p. sg. adhortative aspect

The forms:

<i>wetasik</i>	"let me roast", "I must roast" (cp. <i>wetasin</i> "to roast")
<i>wakanik</i>	"let me take" etc. (cp. <i>wakanin</i> "to take")
<i>balik</i>	"let me cut" etc. (cp. <i>balin</i> "to cut")
<i>ik</i>	"let me say" etc. (cp. <i>in</i> "to say"; root-morpheme: zero),

which, as was said above, are members of a category, are characterized formally by the stem of the verb followed by the adhortative aspect-morpheme for 1st p. sg. *k*;

semantically by the information that the action of the root-morpheme must be performed by the speaker.

Use.

This category is used in independent clauses as a self-exhortation to accomplish an action. As such it has a rather mild form of urgency, a gentle description of what one is going to do, such as:

mel, su isik "well, let me put on my raincoat"

(*su* "net", "textile", "fabric"; *isin* "to put on";

mel (interjection) "well", "now", "what's his name")

In dependent clauses with the causal conjunction *en* it is used to describe the purpose of the action of the main verb, ("in order to")

e.g.:

seke wakanik en vma lahy

(spear take for home I-go), i.e.:

"I go home to fetch a spear"

The same *seke wakanik*, used independently, means:

"Let me take a spear"

§ 19. The category of the second person sing. Adhortative aspect

When a speaker gives a command to his addressee, he uses forms like:

<i>wetasin</i>	"roast", "you must roast" (cp. <i>wetasin</i> "to roast")
<i>wakanin</i>	"take" etc. (cp. <i>wakanin</i> "to take")
<i>balin</i>	"cut" etc. (cp. <i>balin</i> "to cut")
<i>in</i>	"say", "speak" (cp. <i>in</i> "to say")

These forms are members of category, because they all have similar formal features and a common semantic element.

After what was said above (§ 17) about *ik* and *ak* in *wetasik* and *wetathak*, there is no need to enter into a lengthy discussion about *in* and *an* in the forms:

wetasin "roast" (cp. *wetasin* "to roast"), and
wetathan "roast thoroughly" (cp. *wetathan* "to roast thoroughly"), and the like.

Following the same reasoning we come to the conclusion that the formal equipment of the category under discussion is the same stem, followed by the (combined) actor/aspect-morpheme *n*. Thus, though structurally different, this category is homophonous with the category of the infinitive.

It may be characterized:

formally by a verb-stem followed by actor/aspect-morpheme *n*;
 semantically by the information that the addressee must accomplish the action presented by the root-morpheme.

Use.

This category bears the character of a command. It may be toned down to the degree of a request or invitation by addition of a term of social address, e.g.:

(to a male addressee): *balin, nakajak*
 (cut, my-first-brother), i.e.:
 "cut, please"

Remarks.

1. This category, opposed to 1st p. sg. adhortative category, has apart from the different actor a difference in valence: it is not used in dependent clauses to express the purpose of the main verb. Thus the instance of § 18: "I go home and fetch a spear", when transposed in 2nd person: "Go home and fetch a spear", is rendered in other ways.²³
2. To the forms given above should be added a latent form **wetatn*, and comparable forms of verbs with root-morpheme-final *s*.

Verbs other than those with root-morpheme-final *s* have no latent forms of this category, because the consonant-sequences do not occur, whereas a latent form of the verb *in* "to say" (root-morpheme: zero), though, abstractly speaking, it must be possible, was never met with.

²³ Such sentences are rendered with the aid of:

- a. composite verbs: *uma nen seke wakani-lan*
 (home from spear take-go), or:
- b. a participle. *uma lalok seke wakanin*
 (home having-gone spear take)

3. These forms, though homophonous with the members of the infinitive category, were wilfully kept apart from them on account of their meaning and use. The author is well aware of the possibility of considering the forms under discussion as a special use of the infinitive forms.

§ 20. The category of the 3rd p. mild adhortative aspect

The forms:

<i>hymas oak</i>	"he (she, it, they) must hide" (cp <i>hymas in</i> "to hide"),
<i>liploak</i>	"he (etc.) must peel" (cp. <i>lipilin</i> "to peel"),
<i>oak</i>	"he (etc.) must say" (cp. <i>in</i> "to say"),
<i>isoak</i>	"he (etc.) must put on" (cp <i>isin</i> "to put on", e.g. <i>disatep</i> "a raincap"),

and other comparable forms, all bear similar formal traits and a common semantic element. They are therefore entitled to be called members of a category, viz. of the 3rd p. mild adhortative aspect.

They are characterized as a category formally by their common shape of root-morpheme, followed by the formal element *oak*:

semantically by their common information that the action brought about by the root-morpheme must be performed by a 3rd p. actor.

No means are available to discern whether the formal make-up of these forms somehow portrays the two-fold information (one actor-moment and one aspectual moment, viz. an urgent request); therefore the formal element *oak* is accepted here in its totality functioning as the (combined) actor/aspect-morpheme.²⁴

Use.

This category is used when the speaker utters an urgent wish that such and such an action be performed by 3rd p. actor(s).

In dependent clauses it is often used to describe the purpose of the main verb; in such cases the form is followed by the causal conjunction *en* ("in order to"), e.g.:

seke wakanoak en vma laka
 (spear fetch-for home he-goes), i.e.:
 "he goes home to fetch a spear".

²⁴ In a later stage of the description it will become apparent that the element *oak* of the forms under discussion is linked with 3rd p. not formally, but functionally

In dependent clauses, and also with the conjunction *en*, these forms may retain their adhortative character; this is even the ordinary manner to give a command in indirect speech, e.g..

seke wakanoak en jokosin
 (spear he-must-take therefore tell-him), i.e.:
 "Tell him that he must fetch his spear".

§ 21. The category of the 3rd p. strong adhortative aspect

The forms:

<i>hymasnek</i> or	
<i>hymatnek</i>	"he (she, it, they) must hide"
<i>lipulnek</i>	"he (etc.) must peel"
<i>inek</i>	"he (etc.) must say"
<i>isinek</i> or	
<i>itnek</i>	"he (etc.) must put on"
	(cp. <i>hymasin</i> "to hide"
	<i>lipulin</i> "to peel"
	<i>in</i> "to say"
	<i>isin</i> "to put on"),

these and other forms of comparable structure are opposed to all forms discussed till now, and bear the character of a category, as they combine similar formal features with common semantic features

Therefore they are called here members of the category of the 3rd p. strong adhortative aspect

These forms are characterized:

formally by the actor/aspect-morpheme *nek* following the stem of the verb, or — with verbs having root-morpheme-finally *s* — following either the stem or the root-morpheme,
 semantically by the information that the action of the root-morpheme has to be performed by one or more actors of the third person

As opposed to the 3rd p. mild adhortative aspect category, the category under discussion bears a more urgent character.

Use.

This category is used to utter an urgent or very urgent wish, or to state an obligation on the part of the 3rd p

Opposed to the category of the preceding section, the difference may be exemplified thus:

hymasoak "he must hide", "he should hide";
hymasnek or
hymatnek "he must hide", "he *must* hide".

In dependent clauses it is used, with conjunction *en*, practically only in indirect speech, e.g.:

wetnek en jokosin
 (he-must-come that tell-him), i.e.:
 "tell him that he *must* come".

Remarks.

1. In practice no difference could be found with verbs having root-morpheme-final *s* between forms in which the actor/aspect-morpheme *nek* follows the stem, and forms in which it follows the root-morpheme, i.e. between *hymasnek* and *hymatnek* and the like: they are both frequently used and both productive. They are best considered as free variants.
2. It is this free variation which was alluded to in § 17 sub 3b to demonstrate that the formal element *t* in *hymasnek* etc. to all appearances is not an aspect-morpheme, but a phonologically indispensable means of affixing the actor/aspect-morphemes.

§ 22. The category of the 1st p. pl. adhortative aspect

Opposed to the forms of the preceding sections are forms like:

hymasuok "let us hide", "we must hide" (cp. *hymasin* "to hide"),
lipiluok "let us peel" etc (cp. *lipilin* "to peel"),
uok "let us say" etc (cp. *isin* "to say"),
isuok "let us put on" (cp. *isin* "to put on").

Always combining similar formal features and common semantic elements they are beyond doubt categoric. They are therefore called here: the category of the 1st p. pl. adhortative aspect.

They are characterized

formally by a root-morpheme followed by the formal element *uok*;
 semantically by the information that 1st p. pl. must perform the
 action of the root-morpheme, or that he utters a self-exhortation
 to perform such an action.

With this category also the question arises whether in the total formal make-up of the element *uok* a different rôle can be assigned to the two

different semantic moments (one about the person of the actor, one about the desirability of the action). For lack of material for comparison this question simply cannot be answered.

The question may also be asked whether *uok* is an apophonic counterpart of *ik* of the 1st p. sg. adhort. aspect category (§ 18), so much the more so because there are partly comparable phenomena in the different future tenses (§§ 3, 4; cp. *wetasikin* and *wetasukun*, *wetasisikin* and *wetasisukun*) and in remote past tense category (§ 8; cp. *wetathikke* and *wetathukha*). The question cannot be solved with certainty for lack of comparative materials. Although there is a semblance of truth in this supposed apophony, one has to consider:

1. That in the forms under discussion the two supposedly apophonic partners are not *i* and *u*, but *i* and *uo*.
2. That in the different future tenses the apophony relates to the number of actors only, not to the person.
3. That in remote past tense the *i* and *u* correspond not to 1st persons, but to 3rd persons.
4. That *an*-verbs which have the congruous forms *wetathak* (1st p. sg.) and *wetathvok* or *wetathouok* (1st p. pl.) might be expected to betray a similar apophonic relation; for this supposed apophony *a-vo/ouo* however, there is no point of support elsewhere in Dani morphologically.²⁵

Until further insight is gained one had best consider *uok* as a (combined) actor/aspect-morpheme.

Use.

In independent clauses the members of this category contain a self-exhortation or a mild command on the part of the speaker, to his addressee(s) to perform with himself such and such an action.

In dependent clauses these forms, followed by the causal conjunction *en*, describe the purpose of the action of the main verb, e.g.:

seke wakanuok en vma lako
(spear to-take in-order-to home we-go), i.e.:
"we go home to fetch a spear".

²⁵ Lexically there is a handful of apophonic phenomena with nouns and qualifying words; e.g.:

<i>abetek</i>	"other"	<i>abvovky</i>	"others"
<i>jegetek</i>	"boy"	<i>jygytvky</i>	"boys"
<i>akajak</i>	"brother"	<i>akajvky</i>	"brothers",

but these apophonies are apparently of another type (§ 114).

§ 23. The category of the 2nd p. pl. adhortative aspect

When opposing forms like:

<i>hymasini</i> or	
<i>hymatni</i>	“hide”, “you (pl.) must hide”
<i>lipilini</i>	“peel” etc.
<i>ini</i>	“say” etc.
<i>isini</i> or	
<i>itni</i>	“put on” etc.,

to the forms of 2nd p. sg. adhort. aspect category:

<i>hymasin</i>	“hide”, “you (sg.) must hide”
<i>lipilin</i>	“peel” etc.
<i>in</i>	“say” etc.
<i>isin</i>	“put on” etc.

we see formal element *i* coming to the fore as the formal counterpart of the numerical change in the meaning of these forms.

Again here the question can be posed whether the formal element *ini* following the stem (or the root-morpheme after root-morpheme-final *s*) is an indivisible unity, or betrays one or two or all three of the semantic moments: plural actor, 2nd person, and desirability of the action.

In the light of the oppositions given above, and especially in view of the ‘latent forms’ **hymatn* and **itn* (§ 19, Remark 2), realized in the forms *hymatni* and *itni*, here the opinion is maintained that the final *i* functions as the clue for the number of actors, in other words, that *i* is the number-morpheme.

Bearing all the traits of a category, the forms given above henceforward will be treated as members of the 2nd p. pl. adhortative aspect category, which is recognizable:

f o r m a l l y by the actor/aspect-morpheme *n* following the stem — or with verbs having root-morpheme-final *s*, following the stem or the root-morpheme — and preceding the number-morpheme *i*.
s e m a n t i c a l l y by the information that 2nd p. pl. must perform the action lexically indicated by the root-morpheme.

Use.

In use this category is the plural equivalent of the 2nd p. sg. adhortat. aspect category (§ 19).

For softening a command one adds a term of address, e.g. (to males)

balini, nakajvky

(cut, my-first-brothers), i.e.: “cut, please”.

Remark

The term 'number-morpheme *r*', as used above, is valid in the wordings in which it was given, that is if it follows the actor/aspect-morpheme *n*, in other words it is restricted to 2nd person

§ 24. The category of the 2nd person future adhortative aspect

When comparing forms of the shape

<i>hymasino</i>	"you must hide (later)" (<i>hyma·in</i> "to hide")
<i>hymasino</i>	"you (pl) must hide (later)"
<i>hupilino</i>	"you must peel (later)" (<i>hupilin</i> "to peel")
<i>hupilino</i>	"you (pl) must peel (later)"
<i>ino</i>	"you must say (later)" (<i>in</i> "to say")
<i>ino</i>	"you (pl) must say (later)"
	and even·
<i>hymatno</i>	"you must hide (later)", and
<i>hymatno</i>	"you (pl) must hide (later)"
	with forms like
<i>hymasın</i>	"you must hide"
<i>hymasını</i> or	
<i>hymatni</i>	"you (pl) must hide"
<i>hupilin</i>	"you must peel"
<i>hupilini</i>	"you (pl) must peel"
<i>in</i>	"you must say"
<i>ini</i>	"you (pl) must say"

and with the 'latent form' of § 19 (Remark 2)

**hymatn* "*you (sg) must hide",

one is struck by two facts

- 1) that besides the 2nd p sg form *hymasino* there is a form *hymatno*, a realized form of an underlying latent form,
- 2) that there is a relation (and a categoric one, at that) between 2nd p forms of the paragraphs 19 and 23, and homophonous forms, followed by the formal element *o*, entailing a relation (a categoric one that is) between an (instantaneous) command and a delayed action command

These constant and inseparable (and predictable) relations are proof of the categoric character of these forms they belong to the category of the 2nd p future adhortative aspect, recognizable

formally by the tense-morpheme *o* following the actor/aspect-morphemes of 2nd p adhortat aspect categories,

semantically by the information that the command given in the underlying form must be executed later.

Remarks.

1. The tense-morpheme *o*, as described above, functions only with 2nd p. adhortative aspect categories, not with other categories.
2. *What* exactly 'later' is cannot be said: it depends largely on the nature of the action concerned. Thus for instantaneous actions (e.g. "to say" or "to leap") an hour after now is already 'later', whereas for activities taking time (e.g. making a new garden or building a house) that 'later' at best starts 'tomorrow morning'.

This category is often *not* used: even for later actions one may always use the categories of 2nd p. adhortative aspect.

§ 25. The category of the 3rd p. future adhortative aspect

The forms:

<i>hymasínok</i> or	
<i>hymatnok</i>	"he (she, it, they) must hide (later)"
as opposed to:	
<i>hymasínek</i> or	
<i>hymatnek</i>	"he (etc.) must hide";
<i>balínok</i>	"he (etc.) must cut (later)"
as opposed to:	
<i>balínek</i>	"he (etc.) must cut";
<i>isínok</i>	"he (etc.) must put on (later)"
as opposed to:	
<i>isínek</i>	"he (etc.) must put on",

and other comparable forms, all bear the same formal traits and the same semantic element, and so are categorically opposed to the latter forms (those with actor/aspect-morpheme *nek*), from which they are differentiated by the vowel in the formal element *nok*.

Although these forms may be described as a category in its own right without any relation to the opposed forms of the 3rd p. strong adhort. aspect category, one may also describe them as an apophonic category. The latter view is held here.

Therefore this category, henceforward called the category of the 3rd p. future adhortative aspect, is characterized here

formally by the categoric replacement of the vowel *e* in 3rd p. strong adhort. category by the vowel *o*;
 semantically by the information that 3rd p (sg. or pl.) must execute the action concerned at a later time than that of the utterance.

Remark.

What was said in § 24 about what 'later' is, applies to the category under discussion as well.

§ 26. The category of the comitative adhort. aspect

Under this circumlocutory term are brought together here for example the forms:

<i>hymasoakai</i>	"we (you, they) together must hide"
<i>baloakai</i>	"plural actor together must cut"
<i>hpiioakai</i>	"plural actor together must peel"
<i>isoakai</i>	"plural actor together must put on".

Always when finding forms of this shape (a root-morpheme, followed by the formal element *oakai*), one also finds a semantic element implying that the action of the root-morpheme must be executed by all the actors together.

Therefore the categoric character of these forms need not be doubted. However, the question may be asked whether they are categorically constituted by the formal element *oakai* or by *ai*.

When opposing these forms to:

<i>hymasoak</i>	"he (she, it, they) must hide",
<i>baloak</i>	"he (etc.) must cut",
<i>hpiioak</i>	"he (etc.) must peel", and
<i>isoak</i>	"he (etc.) must put on",

one may ask the question whether the forms under discussion are a categoric modification of the latter forms

When answering the question in the affirmative, one has to account for the fact that *oak* elsewhere (§ 20) functions as the actor/aspect-morpheme for third person mild adhortative (sg. and pl.), thus restricted in 'person' and enlarged in 'number' over against the forms under discussion.

Another possible conception, of course, is to treat the formal element *oakai* as a totality, which in its totality expresses the comitative aspect

as well as the adhortative aspect (a command to plural actor), in other words to treat it as one comitative/adhortative aspect-morpheme.

Although less simple the first view is held here.

Not knowing what historical processes have contributed to the formation of 3rd p. mild adhortative and its morpheme *oak*, one can only state that in the present language this morpheme functions as a combined actor/aspect-morpheme; what part is formally played by the two semantic moments of actor and aspect is unknown. In the present-day language, at least, these forms with *oak* present themselves as formally neutral as to person, but functionally linked to 3rd p., just as 1st p. adhortative aspect-morphemes *k* and *uok* (§§ 18, 22) are linked with 1st person not on morphological, but on functional grounds. In other words: they are held in their place in the system by their function: *uok* is a 1st p. pl. adhortative morpheme and *oak* is a 3rd p. adhort. morpheme merely because Dani-speakers happen to use precisely these forms for precisely these functions.

But then, as soon as their shape is changed, their bond with 1st p. and 3rd p. resp. disappears.

Thus the category of the forms given above is characterized here formally by the comitative aspect-morpheme *ai* following the forms which (when taken in their own right) are members of 3rd p. mild adhortative aspect category; semantically by the information that the action of the root-morpheme must be executed by all of the actors together (whether they be 1st, 2nd, or 3rd person).

Use.

This category, when used in dependent clauses, often expresses the purpose of the action of the main verb, e.g.: *ohealek kaigen lipiloakai en wetnio* (to-morrow peanuts you-together-must-peel therefore you-must-come-(later)), i.e.

“to-morrow you all must come to peel peanuts”.

In this translation the comitative moment is linked with the main verb, in Dani it is linked with “to peel”.

Also in dependent use, especially when the main verb is “to say”, “to inform” and the like, that is in indirect oration, this category may retain its comitative/adhortative character, e.g.:

ohealek kaigen lipiloakai en jokosin

(to-morrow peanuts they-together-must-peel therefore tell), i.e.: “tell them that to-morrow they all must peel peanuts”.

§ 27. The category of the deputative adhortative aspect

<i>hymatom</i>	“hide on behalf of me”
<i>balom</i>	“cut on behalf of me”
<i>lipilom</i>	“peel on behalf of me”
<i>isatom</i>	“cook on behalf of me”

(cp. *hymasın* “to hide”, *balın* “to cut”, *lipilin* “to peel”, *isasin* “to cook”).

These forms, and other ones comparable to them, all bear the same morphological and semantic traits, which therefore rank them as members of a category, viz. the category of the deputative adhortative aspect. They all have:

f o r m a l l y the formal element *om* following the root-morpheme; with verbs having root-morpheme-final *s*, this *s* is replaced by *t*;
s e m a n t i c a l l y the meaning that the (one) addressee of the utterance must perform the action in the speaker's place.

There are no means available to discover whether, and in how far, the formal element *om* harbours different formal clues for the three semantic moments, viz. that

- 1) 2nd p. sg.
- 2) must perform the action
- 3) on behalf of the speaker

Therefore this element *om* is considered here in its totality as the aspect-morpheme of this category.

Use.

This category is used when the speaker is strictly to perform the action himself, but asks the addressee to perform it in his place.

Remark.

In a later stage of description a rather similar form will be met with, which for the non-Dani may lead to confusion; it has the formal element *nom* following the root-morpheme or the stem, and the semantic feature that the addressee has to perform the action on behalf of the speaker.

Thus:

<i>hymatnom</i>	“hide on my behalf”; cp.
<i>hymatom</i>	“hide instead of me”;
likewise:	
<i>lipilnom</i>	“peel for me”, “peel on my behalf”
<i>lipilom</i>	“peel for me”, “peel in my place”.

§ 28. Intentional aspect category

There are forms in Dani which have this appearance:

<i>gulikiluk</i>	“(sg. actor) intending to educate” (cp. <i>gulin</i> “to educate”),
<i>bulelikiluk</i>	“(sg. actor) intending to untie” (cp. <i>bulelin</i> “to untie”),
<i>demesikiluk</i>	“(sg. actor) intending to salt” (cp. <i>demesin</i> “to salt”),
<i>dumusikiluk</i>	“(sg. actor) intending to split up” (cp. <i>dumusin</i> “to split up”).

This series can — in principle — be extended in infinitum.

The categoric character of these forms is beyond doubt: always when a formal element *ikiluk* follows a root-morpheme, it entails as its semantic counterpart the information that one actor intends to perform the action, indicated by the root-morpheme.

When comparing these forms with the near future tense category (*gulikiluk* etc. versus *gulikin* etc.), one finds a partial resemblance in form (root-morpheme plus *iki*) and in meaning (both of them turning around an action in the future).

When, however, taking into account the parallel forms of *an*-verbs, one finds a different picture:

<i>gulikiluk</i>	versus	<i>gulikin</i> , but
<i>gulhakatuk</i>	versus	<i>gulhykyn</i> .

Therefore the opposition of *gulikiluk* etc. versus *gulik* (1st p. sg. adhortative) seems more promising; then the congruous forms of *an*-verbs show a similar adjustment:

<i>gulikiluk</i>	versus	<i>gulik</i> , and
<i>gulhakatuk</i>	versus	<i>gulhak</i> .

Thus it seems most adequate to describe the forms under discussion against the background of 1st p. sg. adhortative aspect category; in a later stage of research this procedure will hold good — *mutatis mutandis* — for a plural actor too, both with the verbs having infinitive category with *in* and those with *an*.

But then this difficulty has to be solved: how can a 1st p. form act as the underlying form for a category of 1st and 2nd and 3rd p. sg.? Here the same solution can be given as in § 26: the first person sg. adhortative forms are in fact first person not on formal, but on functional

grounds, in other words: not because they formally betray a relation to 1st p. sg., but because they are functionally linked to 1st p. sg.: the Dani's happen to use them for 1st p. sg., this form for this person.

Now comparing these forms with their plural counterparts, one finds forms like:

<i>gulukiluk</i>	“sg. actor intending to educate”
<i>guluokoluk</i>	“pl. actor intending to educate”
<i>bulehkiluk</i>	“sg. actor intending to untie”
<i>buleluokoluk</i>	“pl. actor intending to untie”
<i>demesikiluk</i>	“sg. actor intending to salt”
<i>demesuokoluk</i>	“pl. actor intending to salt”
<i>dumusikiluk</i>	“sg. actor intending to split up”
<i>dumusuokoluk</i>	“pl. actor intending to split up”.

Here also one is inclined to look for support in the 1st p. pl. of the adhortative category; thus:

<i>guluokoluk</i>	versus	<i>guluok</i>
<i>buleluokoluk</i>	versus	<i>buleluok</i>
<i>demesuokoluk</i>	versus	<i>demesuok</i>
<i>dumusuokoluk</i>	versus	<i>dumusuok</i>

A comparable description of sg. as well as pl. forms is now possible: by the simple affixation of a new formal element the functional bond of the forms *gulik* etc. and *guluok* etc. disappears automatically.

Hence both series of forms, sg. and pl., can be described as members of one category, viz. the intentional aspect category. As such they are characterized:

f o r m a l l y by the intentional aspect-morpheme *V^hluk*, suffixed to the forms of 1st p. sg. or pl. adhortative aspect category (in which *V^h* stand for a vowel, harmonizing with the immediately preceding vowel), and

s e m a n t i c a l l y by the information that the actor or actors is (are) intending to perform the action of the root-morpheme.

Use.

This category is used in dependance on another verb, most often with conjunctions, e.g.:

gume ikiluk mege gamo yky

(a-swim intending-to-have although inactive I-was):

“Although I had the intention to have a swim, I stayed at home”.

To express an intention only, *an* (zero root-morpheme) is used as the main verb, e.g.:

gume ikiluk yky
 "I intend to have a swim".

Remarks.

1. In opposition to the near future tense and apophonic near future tense, especially seen in the light of the 'definite'-ness of those categories (§§ 3, 4), the category under discussion "spoils" the definiteness of the future tense by introducing an uncertain element, viz. the unpredictability of the human actor.

2. The formal element *luk*, undoubtedly present in *V^hluk*, is very elusive both in its syntactic status and in its form; it functions in a very restricted category (to be treated next as a 'remark') as a morpheme; it plays a rôle in the adverb *yluk* ("may be", "might have been", "anyhow", "possibly", "approximately", "presumably", "more or less" etc. etc.), and in *yluk-he*, which oscillates between an adverb and a conjunction, as in the example:

an sedet kakhe hyky yluk-he hetatyk modok
 (I torch where left uncertain seeking much):
 "I am looking and looking *where of all places* I left my flashlight".

3. Because of its limited scope, and because it is a borderline case between morphology and syntax, an infrequently occurring category is dismissed here as a 'remark' only. It concerns forms like:

o balasinokoluk-he
 "the tree may be on the point of collapsing" (cp. *o* "wood", "tree"; *balin* "to cut", "to break" (transit.); *balasin* "to break" (intransit.)).

This category is made up of the contingent category (to be treated later, § 35), followed by the formal element *luk* and conjunction *he* (this conjunction has no special meaning, only a syntactic function, viz. to join dependent and main clauses).

The categoric meaning can best be circumscribed as: adding a note of uncertainty to the contingent character of the underlying form (namely: the contingent category); thus in translation it sounds something like: "because perhaps . . .", "although perhaps . . ." etc., e.g.:

o hvgalasinokoluk-he apma lokon

(the-tree being-in-danger-of-breaking-because-perhaps on-the-ground stay), i.e.:

“stay on the ground, for you never know, perhaps the tree might break”.

jo balasinokoluk-he, etokat!

(the-string being-in-danger-of-snapping-therefore, be-careful), i.e.:

“Be careful, for perhaps the string might snap”.

This category, very restricted in use, occurs only if all of these four conditions are fulfilled:

1. inanimate actor,
2. contingent category,
3. medial voice,
4. if the speaker wishes to emphasize the contingent and uncertain character of the action.

So the production of this category is limited to uncertain, but possible, imminent events in nature, such as a tree that may break, a bank that perhaps is on the point of caving in, and the like.

§ 29. The short prohibitive aspect

Preliminary remark.

While exploring the way in which prohibitions are expressed in Dani (and the same applies to a lesser degree to commands and adhortations), the author sometimes met with a special difficulty, viz. a social one: an informant may be more or less inhibited by the presence of the “*modla mege*”, the “white man” (i.e. the investigator) both in his contact with the investigator and with his fellow people; he may then be inclined to use milder adhortations and prohibitions. Hence the writer claims some reserve for the translations and the “Use” of the following forms, as well as for their systematization.

Here are some such prohibitive forms:

<i>balhvn</i>	“don’t cut, (you, sg.)”
<i>balhvp</i>	“don’t cut, (you, pl.)”
	cp. <i>balin</i> “to cut”
<i>jokothvn</i>	“don’t say, (you, sg.)”
<i>jokothvp</i>	“don’t say, (you, pl.)”
	cp. <i>jokosin</i> “to say”

<i>jele japhvn</i>	"don't play, (you, sg.)"
<i>jele japhvp</i>	"don't play, (you, pl.)"
	cp. <i>jele japin</i> "to play"
<i>munenhvn</i>	"don't delay, (you, sg.)"
<i>munenhvp</i>	"don't delay, (you, pl.)"
	cp. <i>munenin</i> "to delay"

These forms, and other ones of comparable appearance, all show similar formal features, and all imply a prohibition given by the speaker to the addressee or addressees resp. to perform such and such an action. Therefore they cannot be denied the denomination "members of a category", viz. of the short prohibitive aspect category.

Constituent for these forms are the formal elements *hvn* and *hvp* following the root-morpheme. Apparently these forms somehow contain an actor-element, apart from the (prohibitive) aspect-element.

When *balhvn* and *balhvp* are mutually opposed they have formally in common the element *hv* and semantically the prohibition; different in them are formally the elements *n* and *p*, and semantically the number of actors. So it is not far-fetched to assign the rôle of prohibitive aspect-morpheme to the formal element *hv*, and that of actor-morphemes to *n* and *p* resp.

No support is given elsewhere in morphology to a morphological assumption that *v* might be a contraction of some vowel with the vowel *e*, so that these actor-morphemes cannot be simply linked to the actor-morphemes *en* and *ep* of § 6.

So this category is best described as comprising:
 formally the root-morpheme followed by aspect-morpheme *hv*,
 preceding the actor-morphemes *n* and *p* for 2nd p. sg. and pl.
 resp.;
 semantically the information that 2nd p. (sg. or pl.) is prohibited
 from performing the action of the root-morpheme.

Use.

In view of the social handicap during the research alluded to in the preliminary remark, this category was labelled "short" prohibitive after a formal, not a semantic characteristic (such as "strong" or "mild" prohibitive).

Seeing how this category is used in comparison with the category of the next paragraph, one gets the impression that the difference between the two of them is more a matter of social authority than of milder or stronger prohibition.

This category seems best described as functioning as a prohibition by a socially higher speaker to a lower addressee; thus it is adequate for a *gain* ("chief", "important person"), when speaking to a *gebu* ("commoner"), for parents versus their children, etc.

Used between equals this category seemingly bears a stronger shade of prohibition than the "long prohibitive" forms to be treated next. See, however, the general remark at the end of § 31.

Remark.

The form for 2nd p. sg. (-*hvn*) is underlying a construction for negative final sentences: the cited form with suffixed *em* ("in order to", "in view of") expresses the fact that the actor (irrespective of the 'person') is not allowed to perform the action of the root-morpheme; this is done especially in dependent clauses, e.g.:

jele japhvnem jokysa-lan

"Go and tell them that they are not allowed to play".

(cp. *jele japin* "to play")

jokysan "to tell them" in the composite verb *jokysa-lan* "to go and tell them").

§ 30. The long prohibitive aspect category

Whenever forms are found such as:

<i>balhvdek</i>	"don't cut, (you, sg.)" cp. <i>balin</i> "to cut"
<i>balhvsep</i>	"don't cut, (you, pl.)"
<i>jokothvdek</i>	"don't say, (you, sg.)" (<i>jokosin</i> "to say")
<i>jokothvsep</i>	"don't say, (you, pl.)"
<i>jele japhvdek</i>	"don't play" (sg.) (<i>jele japin</i> "to play")
<i>jele japhvsep</i>	"don't play" (pl.)
<i>munenhvdek</i>	"don't delay" (sg.) (<i>munenin</i> "to delay")
<i>munenhvsep</i>	"don't delay" (pl.),

one always finds a combination of similar formal make-up and common semantic traits, in other words: a category, namely the long prohibitive aspect category.

More or less standing by itself formally, this category renders scanty material for analysis. Apparently the aspect-morpheme *hv*, met with in the preceding section, is present here, followed by what to all appearances are something like actor-morphemes. For these actor-morphemes, however, there is only unstable support in present-day Dani: at least for 2nd p. pl. there is a resemblance with the forms of the

habitual aspect category (§ 9). Whether and in how far these formal elements *dek* and *sep* perhaps contain any indication concerning the social status of the speaker and/or the addressee(s), cannot be answered until further insight is gained; they are best considered as actor-morphemes restricted to prohibitive aspect.

Thus the members of this category are characterized:
 formally by the aspect-morpheme *hv* following the root-morpheme, and preceding the actor-morphemes *dek* and *sep* for 2nd p. sg. and pl. resp.;
 semantically by the information that the addressee(s) must abstain from the action of the root-morpheme.

Use.

These long prohibitive forms are used — if our conclusion is correct — by a speaker to an addressee or addressees of socially higher rank (e.g.: child versus parent, pupil versus teacher); used by a speaker to an addressee or addressees of equal or lower rank, they express a mild and polite form of prohibition. See however the remark at the end of § 31.

§ 31. The common prohibitive aspect category

The forms:

<i>balhe hvk</i>	“don’t cut”	cp. <i>balin</i>	“to cut”
<i>jokothe hvk</i>	“don’t say”	cp. <i>jokosin</i>	“to say”
<i>jele japhe hvk</i>	“don’t play”	cp. <i>jele japin</i>	“to play”
<i>munenhe hvk</i>	“don’t delay”	cp. <i>munenin</i>	“to delay”,

and other forms of comparable structure, all exhibit similar morphological features and a common semantic content, and therefore cannot be denied the title of members of a category.

The categoric traits of these forms are:

formally a root-morpheme, followed by the formal element *he* and the adverb *hvk*; ²⁶

semantically the information that the addressee or addressees is (are) forbidden to perform such and such an action.

The two ‘parts’ of these categoric forms may be separated (this is in fact very seldom done) by an adverb to emphasize the prohibitive character, e.g. *balhe modok hvk* (*modok* “very”, “decidedly”, “abso-

²⁶ The word *hvk* by itself as an adverb means: “definitely not”, “on the contrary”, “wrong”; as a sentence it means: “that’s wrong”, “don’t!”

lutely"), i.e.: "For heaven's sake, don't cut", but the verbal component always precedes the adverbial one.

As to the formal equipment of this category one can only guess. It does not seem probable that the first component (root-morpheme followed by *he*) has anything to do with the homophonous form for 3rd p. sg. of the near past tense category; for the second component one may assume some relation with the aspect-morpheme *hv* of the "long" and "short" prohibitive aspect categories, but then the element *k* of *hvk* has to be accounted for; an appeal to the actor/aspect-morpheme of 1st p. sg. adhortative (§ 18) seems rather futile and far-fetched.

Until further insight is made possible by diachronic and comparative research, one had best consider both components (root-morpheme-plus-*he* and *hvk*) as one bipartite aspect-morpheme.

Use.

This category is used more often than those of the preceding sections. For this reason, and because there is no difference in form for a different number of the actor, this category is termed here the 'common' prohibitive aspect category.

It is used in those colloquial situations in which a quick prohibition is required, e.g. in imminent danger ("Don't fall", "don't hurt your fingers" etc.).

With forms of this category the social status of speaker and addressee seems irrelevant: they are socially neutral forms. In how far the high frequency and social neutrality of this category is influenced by the conversation between Dani's and non-Dani's it not known; for non-Dani's this category is the favourite means for expressing a prohibition because it is an "easy" form, socially as well as formally; by repercussion the Dani, when speaking with non-Dani's may prefer this category for conversation.

General remark on the different prohibitive categories.

When comparing Dani with other languages one gets the impression that the Dani's have a dislike for prohibitions. In many situations in which other languages use a 'prohibitive' the Dani's use other means for expressing their feelings about a given action. This is done e.g.:

a. by stating that the action or its result is not desired:

hane weak (your-voice bad): "don't cry",

hamvmvl weak (your-noise bad): "don't make such a noise",

hae lek (your-legs not): "don't dawdle".

- b. by using the contingent category (§ 35) in constructions like:
hepe usanoko (your-corporality running-the-risk-of-falling):
 “don’t fall”.

By way of a conclusion to the preceding sections and a preliminary remark for the following ones, a word must be said about the structural shape of verbs.

The verb as such, apart from the different morphemes which betray a verbal form, has no special shape.

For the root-morpheme of verbs there are no restricting rules governing their phonemic shape except that root-morpheme-finally only occur *s* and *l* (virtually all of them), and with a handful of verbs *n* and *p* (*wakanin* “to take”, *mounin* “to fumigate”, *munenin* “to delay” and *japin* in: *jele japin* “to play”, *wein japin* “to wage war”, and *a japin* “to copulate”).

In due time special attention will be paid to verbs which have an *a* preceding root-morpheme-final *s* like *isasin* “to cook”, *wetasin* “to roast” etc.

Part B. Actorless forms

§ 32. Preliminary remark

The scope of this book does not permit a discussion of what exactly “word-classes” are in Dani. In some of the categories to be discussed next we will meet forms about which it may be asked whether they are true verb-forms; among them, indeed, are words which belong to other word-classes, but because the morphological categories from which they result are typical for the verbal system, they must be discussed in this connection.

Hence all the categories to be given next are described against the background of the verb without a judgment about how they actually function. Thus e.g. the resultative aspect forms in the two clauses

hybyty wetako “roasted sweet potatoes” and
get idako “baby” (*get* “new”, *idasin* “to give birth”)

are connected with the verb but may be interpreted the first one as an adjective, the second one as a substantive.

The question to which class a word belongs can often be solved only on syntactical grounds, but that falls outside the present morphological description.

Therefore in the following sections the categories are treated as verbal

categories, and the denominations of the different categories should not be regarded as definitions, but merely as labels for reference.

When looking back at the preceding sections one finds that all of the categories discussed, except those of the actors, are of the same order, viz. of the order of the tense- and aspect-categories, whereas the actors constitute a separate order: that of the actor-categories.

In the following sections, those of the 'actorless forms', those categories will be treated which exhibit no relation to an actor, neither number (as e.g. in the near future tense), nor person (as e.g. in the near past tense); many of them are comparable to what in other languages are called "participles".

§ 33. The category of the objective infinitive

Not often found, but certainly categoric, are forms like:

<i>balu</i>	"to cut"	("in order to cut")
<i>wakanu</i>	"to take"	("in order to take")
<i>isasu</i>	"to cook"	("in order to cook")
<i>jugulu</i>	"to bend"	("in order to bend")
<i>loilu</i>	"to burn"	("in order to burn")

formally this category is characterized by aspect-morpheme *u* following the root-morpheme;

semantically this category denotes an action in a rather general way, though less general than the category of the infinitive (§ 1), without any information as to actor, or time, or aspect, and giving only a slight hint of finality. E.g.:

<i>wakanu na'yt</i>	"I am unwilling to take"
<i>wakanu nogot</i>	"I don't know (how) to take"
<i>wakanu nelu</i>	"I know (how) to take"
<i>wetasu na'yt</i>	"I don't like to roast"
<i>wetasu nogot</i>	"I don't know (how) to roast"
<i>wetasu nalu-halutek</i>	"I am a bungler at roasting"
(<i>nalu-halutek</i>	"clumsy", "awkward", "bungling")
<i>dvky wasu-em</i>	"a club to beat with"
<i>ysok isasu-em</i>	"a kettle for boiling" ²⁷

²⁷ The writer once heard it used in the sentence: *nit akhuni haklege-te hedu loilu, hithe genakma salinaphisep* "We Dani's for our part, cremate them (i.e. the deceased), but you (meaning: the white people) bury them".

Use.

Although this category is in principle infinite in production, its members are rather infrequently used.

They are used virtually only to denote an inclination or disinclination, ability or disability, or a purpose, in which case they are most often used with postposition *-em* ("in order to").

Remark.

As the examples make clear, a term like "final infinitive" for this category is an overstatement of its finality. The action is more or less treated like an object of inclination or disinclination etc. Cp.:

wetasu na'yt "I don't like roasting", and
hybyty na'yt "I don't like sweet potatoes".

Therefore this category was called 'objective infinitive'.

§ 34. The category of the voluntative aspect

Forms like:

<i>isasusak</i>	"willing to cook"	cp. <i>isasin</i>	"to cook",
<i>hosusak</i>	"willing to clean"	cp. <i>hosin</i>	"to clean",
<i>jagulusak</i>	"willing to teach"	cp. <i>jagulin</i>	"to teach",
<i>wakanusak</i>	"willing to take"	cp. <i>wakanin</i>	"to take"

show all the characteristics of a category, viz.:

formally aspect-morpheme *usak* following the root-morpheme, and semantically the information that the actor or actor is (are) inclined to perform the action of the root-morpheme.

Use.

This category is only used in dependence on another verb, often with conjunctions, e.g.:

helal wakanusak en gamo yky
 (a-drawing wishing-to-draw therefore I stay at home)
 "I stay at home because I want to write a letter".

To express a mere willingness one uses as the main verb *an*, e.g.:²⁸

helal wakanusak yky
 "I want to write a letter".

²⁸ This form *an* comprises zero root-morpheme and secondary infinitive aspect-morpheme *an*; cp. § 55.

Remark.

The category of the voluntative aspect has its place on a line with near future tense and intentional aspect categories. Near future tense was described as a 'definite' tense category without any "pollution", so to say, by the attitude of the actor towards the action (readiness, willingness, etc.); the intentional aspect category (§ 28) denotes that the actor intends to perform the action, thus combining the attitude of the actor with a temporal element (the action will probably be performed in the future). A third category is possible, viz. one which expresses the attitude of the actor without any interest in the actual realization (in the future) of the action, in other words: a 'definitely' aspectual category. And that indeed is the voluntative aspect category.

§ 35. The contingent aspect category

The forms:

<i>gakalinoko</i>	"running the risk of splitting",
<i>balinoko</i>	"running the risk of cutting",
<i>wakaninoko</i>	"running the risk of taking",
<i>mouninoko</i>	"running the risk of smoking out",

(cp. *gakalin* "to split", *balin* "to cut", *wakanin* "to take", *mounin* "to smoke out"),

and other forms of comparable shape are members of a category, viz. the contingent aspect category which is characterized:

formally by the aspect-morpheme *oko* following the infinitive form, and

semantically by the information that there is a chance or risk or danger that the actor will achieve the action of the root-morpheme.

As a free variant one sometimes finds, in this category only (i.e.: only when preceding aspect-morpheme *oko*), an infinitive-morpheme *un* beside *in*, thus:

<i>gakalunoko</i>	or <i>gakalinoko</i> ,
<i>balunoko</i>	or <i>balinoko</i> etc.

Use.

This category is often used in dependent clauses, as a rule with conjunctions, to express the purpose of the main clause. This is especially done to explain the reason of an exhortation or prohibition (compare what was said in the 'general remark' of § 31. E.g.:

hat ysoak lipilinoko nen, an wokosin
 (you bottle running-the-risk-to-break therefore, me give)
 "Give that bottle to me, otherwise you will break it".

Remark.

The standpoint could be defended especially in view of the variation *gakalinoko/gakalunoko* etc. that the aspect-morpheme is not *oko*, but *inoko* or *unoko* following the root-morpheme.

This standpoint is not held here because, as in due time will become clear, verbs which have *an* in the infinitive, e.g. *sepethan* "to press firmly", have forms ending in *anoko* (e.g.: *sepethanoko*) in the contingent aspect category.

§ 36. The category of the idiosyncratic aspect

A category of restricted applicability is that of forms like:

isatho (wetek) "he (she, they) is (ar) a cook"
 (*wetek* "he, she, it, they is, are"; *isasin* "to cook")
wetatho (wetek) "he (etc.) is a baker, the baker"
 (*wetasin* "to roast", "to bake")
helal wakanho (wetek) "he is a clerk"
 (*helal wakanin* "to write")
nokoe ikho (wetek) "he is a sleepy-head"
 (*nokoe in* "to sleep")

These forms bear the characteristic traits indispensable for members of a category.

The productivity of this category is clear beyond any doubt, for we meet members of it in diverse terms which result from a new cultural situation; thus e.g. the new occupations which since the arrival of the white man (i.e. roughly in the last ten years) have come to life in the Mugogo community: these occupations are circumscribed with the aid of this idiosyncratic aspect category, such as "cook", "baker" and "clerk" (see above), or "teacher" (*jagulho wetek*) etc.

This category is characterized:

formally by aspect-morpheme *ho* following the root-morpheme,
 semantically by the information that the action is repeatedly
 performed as a personal habit, an idiosyncrasy, or an occupation.

Use.

The only verb with which members of this category are used is *welakasin* "to be", "to exist", which for 3rd p. is blockaded by the form *wetek*. (For *welakasin* cp. "improductive categories" § 94 ff.)

Remark.

Although the members of this category may be said not to belong to the word-class of the verbs any more, they show in syntactical respects their connection with that word-class, with which they are linked morphologically. This is clear from the use of an adverb as the adjunct of idiosyncratic forms, e.g.:

nokoe ikho modok welaken
 (sleep doing-habitually very you-are):
 "you are a stubborn sleepy-head".

The complete description of these phenomena, however, pertains to syntax.

§ 37. The durative aspect category

<i>hetatyk</i>	"seeking and seeking"	(<i>hetasin</i>	"to seek")
<i>balyk</i>	"cutting all the time"	(<i>balin</i>	"to cut")
<i>hymatyk</i>	"hiding all the time"	(<i>hymasin</i>	"to hide")
<i>nokoe yk</i>	"sleeping all the time"	(<i>nokoe in</i>	"to sleep")

These forms, brought forward as a sample, representing a large number of comparable forms, are members of a category, namely of the durative aspect category.

It is characterized

f o r m a l l y by the aspect-morpheme *yk* following the root-morpheme; with verbs having root-morpheme-final *s*, this *s* is replaced by *t*;
s e m a n t i c a l l y by the information that the actor is continuously occupied with the activity of the root-morpheme.

Use.

Often this category is used in combination with that of the reduplication (§ 41); in that case the total form expresses an action which is endlessly continued and repeated, e.g.:

i udalyk udalyk
 "crossing the river again and again, endlessly"
hetatyk hetatyk modok
 "endlessly seeking and seeking, looking and looking".

As a rule members of this category are used in combination with a main verb (such as “to be”, “to lie”, “to sit”, “to go”), but a main verb may be dispensed with, viz. in expressions like:

epe heinet watyk

(his-corporality unconsciousness struggling), i.e.:

“he is fighting and fighting against unconsciousness”, or: “he is in the throes of death”.

§ 38. The 1st category of the resultative aspect

<i>hualek</i>	“open”	cp. <i>hualin</i>	“to open”
<i>latek</i>	“closed”	cp. <i>lasin</i>	“to close”
<i>gapelek</i>	“sharp”	cp. <i>gapelin</i>	“to sharpen”
<i>csi gatek</i>	“fur”	cp. <i>gasin</i>	“to sew”

(*esi* “hair”)

hynakan bete wakanek bagiat (literally: three two taken: one): “three minus two is one”.

These and other forms of comparable structure exhibit a stable and predictable, in other words: a categoric, relation between a formal feature: aspect-morpheme *ek* following the root-morpheme, in which the final *s*, when occurring, is replaced by *t*; and a semantic feature, denoting the result of the action, expressed by the root-morpheme. Thus in most cases the meaning is such that in translating it is usually best rendered by a past participle.

For verbs, having root-morpheme-finally the sequence *as* (e.g. *wetasin*, *isasin*) this category is sometimes blockaded by the 2nd category of the resultative aspect, to be discussed sub “improductive verb-categories” (§ 101).

Use.

This category is used both ‘predicatively’ and ‘attributively’ as an adjective. It often has a specialized meaning or, rather, is used for only one of the possible applications of the lexical meaning.

Thus e.g. *wasin* means: “to aim at a person”, “to attack”, “to strike”, “to hit”, “to beat”, “to slay”, “to kill”, but the resultative aspect form *watek* only means “dead”, the result of “killing” either by a human or a spiritual actor, e.g.:

<i>ap watek</i>	“a corpse” (<i>ap</i> “man”)
<i>wam watek</i>	“dead body of a pig” (<i>wam</i> “pig”)

Apparently here is a borderline between morphology and lexicon, because *which* of the possible 'meanings' of a verb is determined in this category cannot be predicted. Thus there is no conceivable reason why the resultative aspect form of *akasin* "to be", "to become", i.e.: *akatek* should mean "property" or "relative", *nakatvky* "my relatives", or why the resultative form of *hakasin* "to make", viz.: *hakatek* should mean only "imitation", "picture", "photograph".

Remark.

Two members of this category, viz.: *wakanek* and *balek* (cp. *wakanin* "to take", and *balin* "to cut") often function as mere postpositions with the meaning of: "without", "missing", e.g.:

ugul esi balek (skull hair missing): "bald-headed",
egi balek (fingers missing): "fingerless" (designating a person one or more fingers of whom were cut off during a mourning ceremony).

The cited *balek* often functions in the names of tribes living outside the Baliem Valley, or (supposedly) originating from outside the Valley, such as the *Inegi balek* (their-arms missing), the *Inagul balek* (their-penis missing), the *Inasuk balek* (their-ears missing), because these tribes, as distinct from "*nit akhuni*" ("we, men"), i.e. from the Dani's in the valley, are considered to be no real men, because they lack certain members of the body: ears or penis or arms ("grazing their food like pigs").²⁹

§ 39. The category of the detached active past participle

The forms:

<i>balyluk</i>	"having cut"	(<i>balin</i>	"to cut"),
<i>wakanyluk</i>	"having taken"	(<i>wakanin</i>	"to take"),
<i>nokoe yluk</i>	"having slept"	(<i>nokoe in</i>	"to sleep"),
<i>isatluk</i>	"having cooked"	(<i>isasin</i>	"to cook"),
<i>wetatluk</i>	"having roasted"	(<i>wetasin</i>	"to roast")

²⁹ This however does not seem to apply to the *Esel-balek*, a tribe, south of Baliem Valley (*esel* "bladder", "amnion and corion"). These people are supposed to consist of embryo's, who by tearing (*balek*) of the membranes (*esel*) underwent abortion and were thrown into the river, after having drifted downriver they came ashore and formed a new tribe, the *Eselbalek*.

are here representatives of a category, viz. that of the detached active past participle.³⁰)

Members of this category are recognized:
 formally by tense-morpheme *yluk* following the root-morpheme, whereas the phoneme *y* of *yluk* is dropped after root-morpheme-final *s* (which then, according to § 2, is replaced by *t*);
 semantically by the information that the actor has accomplished the action of the root-morpheme (and proceeds to another action), and by the syntactical implication that the possible object of the action plays no rôle in the main clause.

Use.

This category is only used in dependent clauses in which the actor is the same as the actor of the main clause, whereas the object if any of the dependent clause does not occur explicitly or implicitly in the main clause.

Thus this category is used in sentences like:

“having roasted sweet potatoes, I went home”:

hybyty wetatluk vma lahy,

because the object of the dependent clause (“potatoes”) does not occur in the main clause. In the sentence:

“having roasted sweet potatoes, I ate them”

this category is not used.

Remark.

The syntactic implication ‘that the possible object of the action etc.’ means that with this category are expressed actions both with and without an object.

§ 40. The category of the first bound active past participle

The forms:

<i>balhoko</i>	“having cut”	cp. <i>balin</i>	“to cut”,
<i>wakanhoko</i>	“having taken”	cp. <i>wakanin</i>	“to take”,
<i>isathoko</i>	“having cooked”	cp. <i>isasin</i>	“to cook”,
<i>wetathoko</i>	“having roasted”	cp. <i>wetasin</i>	“to roast”,

³⁰ With ‘active’ is meant here that the verbal form is related to the actor of the verb, as opposed to the resultative aspect category (§ 38), thus:

<i>jo balyluk</i>	“having cut a string” refers to the actor,
<i>jo balek</i>	“a cut string” refers to the object of the act of cutting.

and other ones of comparable structure are members of a category, namely the category of the first bound active past participle, which is characterized:

formally by tense-morpheme *hoko* following the root-morpheme; semantically by the information that the actor has finished the action of the root-morpheme (and proceeds to another action), and by the syntactical restriction that there must be a semantical relation between the object of the dependent clause and the action of the main clause.

Use.

The syntactical restriction mentioned above implies that this category mainly occurs in sentences in which actor and object are the same both in the dependent and in the main clause, that is, in sentences like:

"I roasted sweet potatoes and ate them"

hybyty wetathoko nykhy,

but there are also cases like:

jylua balhoko athy paka wolok lan

(bamboo having-cut that with-the-aid-of carrying go)

"cut down some bamboo, and with that bamboo carry (it) away".

The writer once even recorded a case in which the actors of the dependent and the main clause shifted:

gon balhoko o momoklakama

(*gon* "wood-beetle or -insect" of unknown species; *balin* "to cut", "to destroy"; *o* "wood", "tree"; *momoklakama* "it got pulverized definitively"):

"the wood-insects reduced the tree to powder", in which the suppressed object ("tree") of the dependent clause functions as the actor of the main clause.

Remark.

This category is, so to speak, the syntactic complement of the detached active past participle of the preceding section because they, taken both together, cover the field which in other languages is occupied by the active past participle.

§ 41. The category of reduplication

Apparently productive is the categoric procedure underlying forms like:

jele japyk japyk "playing and playing all day" (*jele japyk* durative aspect form of *jele japin* "to play" cp. § 37)

udalyk udalyk "crossing the river again and again, endlessly" (*udalin* "to cross")

hat nokoe ikho modok ikho modok (welaken) "you are an incorrigible sleepy-head" (*hat* "you"; *nokoe in* "to sleep" in idiosyncratic form of § 36; *welaken* "you are")

hetathy hetathy te, lek akama "I sought and sought, but it was not there" (*hetasin* "to seek" in near past tense; *lek* "not"; *akama* "it is definitively").

What is categoric in these, and other comparable forms, is:

f o r m a l l y the reduplication of the total verbal form, whatever categoric shape it has;

s e m a n t i c a l l y the information that the action is performed intensely or frequently; in those cases in which a verbform is preceded by a subsidiary, like *wein japin* "to wage war" and *nokoe in* "to sleep", the subsidiary is not reduplicated.³¹

Remark.

What exactly is meant by a reduplicated form, either intensity or frequency, is largely dependent on the lexical meaning of the verb, as is clear from the examples above: an uninterrupted activity like "looking for something" (*hetasin*) gets an intensitive shade of meaning, whereas a frequentative moment better suits verb like "crossing a river" (*udalin*).

Note that this category affects the 'total verbal form' in contradistinction to the partial reduplication of the reciprocal voice category, to be treated in § 47.

This is the reason why the total reduplication is discussed here, although the author is well aware of the fact that it might be satisfactorily described as a matter of syntax.

§ 42. The category of composite verbs

Those verbs which are composed of a verb-stem and another verb are called here: composite verbs. They are joined in such a way that

³¹ With 'subsidiary' is meant here an unchanging and separate word which occurs with a certain verb, but never independently; thus *nokoe* or *gume* or *gamo* are subsidiaries because they only occur in the expressions: *nokoe in* "to sleep", *gume in* "to bathe", and *gamo in* "to abstain", "to stay at home".

they are inseparable, whereas the lexical meanings of both components contribute to the meaning of the compound.³²

The constituent parts are thus:

- a) a verb-stem; the stem of any verb may function as such;
- b) another verb. In fact only three verbs were found in this function, namely: *lan* "to go", *wesin* "to come", and *lokön* "to remain", "to stay", "to keep . . . ing".

This category is productive in so far as a compound can be made of *lan*, *wesin*, and *lokön* with any verb. As a compound however it is 'conjugated' to a large degree with the aid of unproductive categories (§§ 94 ff). Therefore it is sufficient to have mentioned here the categoric procedure.

Formally the composite verbs consist of a stem and one of the verbs *lan*, *wesin*, and *lokön*.

The stem is:

root-morpheme followed by *i*
before the verbs *lan* and *wesin*;
root-morpheme followed by *hy*
before the verb *lokön*.

Nearly always the initial consonant of *wesin* is dropped in composite verbs: *isasa-wesin* or *isasi-esin* "to come and cook"

Semantically the composite verbs with stem in *i* denote that the actor is on his way to perform the action of the first component; those with stem in *hy* denote that the actor continues the action of the first component

E.g.:

<i>wakanin</i>	"to take"
<i>wakani-esin</i> or	
<i>wakani-wesin</i>	"to come and take"
<i>wakani-lan</i>	"to go and take"
<i>wakanhy-lokön</i>	"to go on taking"
<i>hymasi-esin</i> or	

³² In this they distinguish themselves from the idiosyncratic category and other participles which are separate from the main verb, and from the 'medial voice' in which one of the constituent 'parts', resembling *lan* as a component in a composite verb, has no lexical meaning. Compare:

hymasi-laka "he goes and hides", "he goes to hide", and
hymatlaka (medial voice) "he gets lost".

<i>hymasi-wesin</i>	“to come and hide”
<i>hymasi-lan</i>	“to go and hide”
<i>hymathy-lokon</i>	“to keep hiding”
<i>hymasın</i>	“to hide”

Part C. Object-forms

§ 43. Preliminary remarks

In the two preceding parts we discussed those productive categories which had a relation to an actor (Part A), or no relation to an actor (Part B), but no mention was made of an ‘object’.

Two orders of categories were involved: the order of the actor-categories and the order of the tense- or aspect-categories.

Another order, viz. that of the voice-categories, as we will call them, comes to the fore when those verbs are studied which show, by themselves, a relation to the object of the action, or to the actor and the object of the action.

By ‘object’ we mean here that which is not the originator of the action described, but is somehow affected by it. This ‘somehow’ comprises a scale of different relations for which it is impossible to give a simple formula; thus the action of the root-morpheme may be permitted to the object, may be urged on the object, may be for its benefit, may be to its detriment etc.

An exhaustive semantic description cannot be given, because each lexical meaning influences the categoric meaning in a different way, but a general impression may be gained from a comparison of some examples, such as:

<i>joknethe</i>	“he said to me”	cp. <i>jokosin</i>	“to say”
<i>woknethe</i>	“he gave to me”	cp. <i>wokosin</i>	“to give”, “to fetch”
<i>woknaphe</i>	“he guided me”	cp. <i>wokosin</i>	“to fetch”, “to give”
<i>dalnaphe</i>	“he stabbed at me”	cp. <i>dalin</i>	“to stab at”, “to attack”
<i>lakhanhe</i>	“he made me go”, “he sent me”	cp. <i>lan</i>	“to go”
<i>laknethe</i>	“he allowed me to go”, “he let me go”.		

The Dani equivalent of the word "me" in these translations is what is called here the 'object'.

The morphological categories which, as such, refer to an object, (in other words, the voice-categories) are in summary:

1. Energetic voice-category. The smallest degree of 'object'-ness is found in the energetic voice category. This category constitutes a borderline case between object-verbs and plain verbs; however, it shows at least the existence of an object, which relation is considered here sufficient for the label: 'object-verb'.
2. Causative voice-category. Also implicitly referring to an object are those verbs which describe that such and such a 'person' is brought into such and such a state (in forms like: "to awaken someone", "to make something large"); by doing so they betray a relation to an object, and therefore are entitled to the label: members of a voice-category, viz. of the causative voice.
3. Medial voice. Dani language has a category for which we use the name 'medial voice category', in which the actor is described as getting into the state which is the result of the action, designated by the root-morpheme.

Because this category thus shows, by itself, a relation to the object of the action, it is a voice in the sense described above.

4. Reciprocal voice category. Verbal forms which, as such, denote that the actors are mutual objects of an action (such as: "to pay each other" or "to stab at each other") come under the heading of object-verbs; they are called here members of the reciprocal voice category.

5. Next we have the curious verbal forms which not only betray a relation to an object, but even name it by means of an infix pronoun. The different pronouns stand for the human being(s) or pig(s) that are affected by the action of the root-morpheme in different shades of object-ness. These shades of object-ness cannot be delineated with exactness because each lexical meaning has, so to say, its own interpretation of the categoric meaning.

As an illustration, here is the verb *hosin* "to clean" with the different object-infixes:

- | | |
|-----------------|--|
| <i>hotnesin</i> | 1) "to clean for me" |
| | 2) (sometimes) "to allow me to clean" |
| <i>hotnapin</i> | "to clean me" |
| <i>hothanin</i> | "to have me clean", "to urge me to clean". |

Each of these forms may occur with different tense- or aspect-categories and actor-categories, e.g.:

<i>hotnesikin</i>	"sg. actor will clean for me"
<i>hotnethe</i>	"he cleaned for me"
<i>hotnethikhe</i>	"he cleaned for me (long ago)"
<i>hotnesusak</i>	"wishing to clean for me" etc.

Because a morphological denomination of these forms is rather difficult, as will become clear later on, and because semantically these forms are rather elusive, they are labeled here merely "first", "second", and "third" object voice categories.³³

Common characteristics of the three object-voices:

- a) the infixed pronouns refer only to human beings and pigs, not to other animals, things, events etc.
- b) for 3rd p. object (sg. and pl.) these object-voice categories are often *not* used; instead one uses the "plain" verb; thus:

<i>hotnysan</i>	"to clean for us" (<i>hosin</i> "to clean")
<i>hothysan</i>	"to clean for you (pl.)"
<i>hotysan</i> or	
<i>hosin</i>	"to clean for them"
- c) no 1st, 2nd, or 3rd object-voice forms were found with complete or partial identity of actor and object such as: "I wash myself", "we hit each other", "we clean for me", "I clean for us".
- d) all object-forms are mutually exclusive, or pertain to the same order.

Two exceptions to this rule are discussed later in §§ 106 and 107.

§ 44. The energetic voice category

The Dani language exhibits an in principle infinite number of forms which, notwithstanding a great resemblance in form and meaning with the forms of the preceding sections, all show typical differences in form and meaning. Thus one finds:

<i>wetasuok</i>	"let us roast" (§ 22)
	(<i>wetasin</i> "to roast")

but also:

<i>wetathavok</i> or	
<i>wetathaouok</i>	"let us roast thoroughly"

or:

<i>mesalik</i>	"let me demolish" (§18)
	(<i>mesalin</i> "to demolish"), and:
<i>mesalhak</i>	"let me demolish completely"

³³ In order to prevent misunderstandings, the words "first", "second" and "third" refer to the word "categories", *not* to "object".

- or:
sigipisikin "sg. actor will tear" (§ 5) (*sigipisin*)
 beside:
sigipithekein or
sigipithekyn "sg. actor will tear to pieces"
- or:
dasin "to give birth to a child" (§ 1)
 beside:
dathan, or *dakhan*, or *daphan*, or *da'han* "to initiate a person"
- or:
bolelukun "pl. actor will wipe" (§ 4)
 (*boletin* "to wipe")
 beside:
bolethokun or
bolethokoin "pl. actor will smooth", "pl. actor will iron (a dress)"
- or:
jukulusak "wishing to paint oneself" (§ 34) cp. *jukulin*
 "to paint oneself", "to ripen" (said of fruit
 which changes colour when ripening)
 beside:
jukulhasak "wishing to hang fruit to ripen".

At first glance these forms are rather chaotic, formally as well as semantically. When scrutinizing first the semantic side of these forms, we find a typical feature coming to the fore in several of them, viz. the connotation that the action is done thoroughly. This applies to the first three examples clearly; also the example of "to initiate", when seen in the light of Dani culture, is obvious: physical birth is only the start of the individual, but by initiation he is born 'completely', that is, as a member of the community. Also the relation between "to wipe" and "to smooth" (or "to iron") can be understood in terms of "thoroughness". A new moment appears in the example of *jukulhasak*, viz. a causative one: to have the object perform the action of the root-morpheme.

This causative moment appears in verbs which otherwise have no object, and which through this category get an object.

Combining the two moments of thoroughness and causality in the light of the energy with which an action is performed or caused, we termed these forms: energetic forms, so much more so because energetic

forms in combination with some other categories (e.g. adhortative aspect categories) assume an active or actual connotation. The term "energetic" appears to cover all these connotations.

Formally these forms show a remarkable preference for a strong occlusion root-morpheme-final: root-morpheme-final *l* is often (not always) replaced by *t* (when and why this replacement takes place, is a matter of lexical interest; no rules can be given); root-morpheme-final *t* (cp. § 2) is sometimes replaced by one of the other stops/fricatives *k*, *p*, or *'* (when and why these variations occur is a matter of lexical interest, no rules being known which govern this distribution).

The common formal element in all of the forms given above is the formal element *h*; the other differences can be put down to different actor and tense/aspect-morphemes, viz.: the secondary categories to be treated in the §§ 54 ff.

Summarizing one may characterize the energetic voice category: formally by the energetic voice-morpheme *h* following the (often modified) root-morpheme;³⁴ semantically by the information that the action is performed energetically, or that the action is caused to happen.

Remark.

This alternative semantic feature "thoroughness" (or "intensity") versus "causality" seems a rather unsatisfactory characteristic for a morphological category. This, however, is more apparent than real, for: the verbs which have no object are all, as far as known, causative in the energetic voice; and the verbs which have an object are all, as far as known, intensive in the energetic voice.

§ 45. The causative voice category

A number of verbs in many respects resemble members of the energetic voice category, e.g.:

<i>gokothan</i>	"to enlarge", "to make large", "to make big" cp. <i>gok</i> "large", "big", "great"
<i>lekethan</i>	"to stop something" cp. <i>lek</i> "not"

³⁴ This modification of the root-morpheme seems incompatible with the principle of the formal uniformity of a category. However, uniting these forms into one category is the shortest way to a satisfactory description.

<i>elukuthan</i>	“to awaken (a person)” cp. <i>eluk</i> “awake”
<i>apulokothan</i>	“to stir” cp. <i>apulok</i> “moving”, “in motion”
<i>bothan</i>	“to ram”, “to stamp down” cp. <i>bo</i> “down”
<i>weinvmothan</i>	“to create”, “to convert fallow ground into a garden” cp. <i>weinvm</i> “visible”.

When comparing these forms with those of the energetic voice, especially with the causative variety of them, one is struck by the resemblance.

They cannot however be ranked with members of the energetic voice category because:

1. the root-morphemes of the forms under discussion are non-verbal. This should be a reason for discussing them under their respective headings; this is not done here because the resultant forms are undoubtedly verbal.

2. the causative voice-morpheme is not *h*, but *th* or *V^hth* following root-morpheme-final vowel or consonant resp., in which *V^h* stands for a vowel harmonizing with the last vowel of the root-morpheme, e.g.:

lek / lekethan; gok / gokothan.

Doubt may be raised about the productivity of this category because practically only adjectives and adverbs can furnish root-morphemes. Both word-classes, however, are rather poor numerically.³⁵

Until contrary proof is given this category is considered here to be productive, on the speculative ground only that no other category with the same function was found. In a case like this one might speak of “restricted productivity”.

The characteristics of this category are resumed here as:

f o r m a l l y causative voice-morpheme *th* following root-morpheme-final vowel, or *V^hth* following root-morpheme-final consonant (in which *V^h* represents a vowel harmonizing with the last preceding vowel);

s e m a n t i c a l l y the origin of a verb with the lexical meaning: to bring about the state which is designated by the root-morpheme.

³⁵ Here are meant original adjectives and adverbs, i.e. those without a verbal background. Numerous adjectives and adverbs in Dani are originally verbal, e.g. *gapetek* “sharp”. The verb “to make sharp”, however, is not something like **gapetekethan*, but the original verbal form: *gapelin* “to sharpen”; cp. § 38.

§ 46. The medial voice category

In opposition to most of the forms, discussed in Parts A and B of this Chapter, forms can be produced which all show a morphological enrichment and a semantic modification; e.g.:

<i>wedlelin</i>	"to put in the sun to dry"
<i>wedlelasin</i>	"to dry in the sun"
<i>idasin</i>	"to give birth"
<i>idatlasin</i>	"to be born"
<i>hymasinoko</i>	"running the risk of hiding"
<i>hymatlasinoko</i>	"running the risk of getting lost"
<i>wasikin</i>	"sg. actor will strike (or: attack, wound, beat, hit, kill, slay etc.)"
<i>watlasikin</i>	"sg. actor will die"
<i>wathy</i>	"I hit, I kill, I killed etc."
<i>watlahy</i>	"I die", "I died (recently)"
<i>jegalin</i>	"to break (something)"
<i>jegalasin</i>	"to break", "to get broken"
<i>balhikhe</i>	"he cut (in the remote past)"
<i>balakikhe</i>	"it broke (in the remote past)".

As appears from the comparison of these forms, something like a formal element *la* or *las* or whatever it may be, is, so to say, a multiplier.

As far as the meaning of these forms is concerned, the forms with the element *la* or *las* all show that the actor gets into the state which is the result of the action of the root-morpheme; thus the result of *nakoilin* "to extinguish (a fire)" is: "to be extinguished", and getting into that state (of being extinguished) is precisely what is the categoric meaning of the medial voice of that verb:

<i>nakoilas</i>	"to go out", "to die" (of a fire).
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The semantic feature thus being rather simple, the formal equipment of this category requires further scrutiny. We find (restricting ourselves for the time being to the infinitive category) forms like:

<i>hatetlasin</i> and	
<i>hatelasin</i>	"to tear", "to get torn"
	(cp. <i>hatelin</i> "to tear something")

daklasin and
datlasin and

<i>da'lasin</i>	"to be born" (cp. <i>dasin</i> "to give birth")
<i>jegalasin</i>	"to break", "to get broken" (cp. <i>jegalin</i> "to break something").

Apparently root-morpheme-final *l* is sometimes replaced by *t*; otherwise it coalesces with the initial *l* of the voice-morpheme; root-morpheme-final *s* is replaced by *t* (cp. § 2), but often this *t* in its turn is replaced by one of the other stops/fricatives *p*, *k*, or by ' .³⁶

No rule can be given when and why root-morpheme-final *l* is replaced by *t*, nor when and why root-morpheme-final *t* is replaced by one of the other stops/fricatives, or, in other words: why there is beside *datlasin* also a form *daklasin* and a form *da'lasin*, but no forms like **waklasin* or **wa'lasin* beside *watlasin* "to die", or why there is a form *hatetlasin* beside *hatelasin*, but no form like **jegatlasin* beside *jegalasin*.³⁷

These distributions apparently are arbitrary, and so a matter of lexical interest.

Apart from these modifications of the root-morpheme there are furthermore some remarkable phenomena with regard to the medial voice morpheme: whereas infinitive, contingent aspect, and future tense categories show the formal element *las*, the examples of remote past tense and near past tense (and other forms not mentioned) show *lak* or *lah*. These phenomena, as will be found later, are characteristic for a number of divergent categories. Postponing a fuller treatment of these categories, we can confine ourselves here to a simple description of this medial voice category, viz.:

formally it is characterized by medial voice-morpheme *las* (with allomorphes *lah*, *lak*, and *la*) following the root-morpheme; the final consonant of the root-morpheme may be replaced, following an unpredictable distribution, by *t* if it (the final consonant) is *l*, or by *p*, *t*, *k*, or ' if the final consonant is *s*.³⁸

³⁶ "Root-morpheme-final *l*... coalesces with the initial *L*...": this view is maintained here because no doubt no double articulation of *l* is heard and because in verbs like *nakoilas* a progressive assimilation is heard [*nagoilvasin*], which would be improbable after a double *l*.

³⁷ How the few verbs with root-morpheme-final *n* or *p* "behave" in this category is not known; the writer never heard them used; possibly they do not even exist; cp. Remark sub I.

³⁸ In this respect the situation is the same as that, found with the energetic voice category (§ 44).

semantically this category entails the information that the actor gets into the state which is the result of the action designated by the root-morpheme.

Remarks.

1) The categoric meaning was described above as 'getting into the state . . .', not as: 'being brought into the state . . .', in other words: this category cannot be paralleled with what in other languages is called the "passive voice". One even very often finds this category used for events which, in the opinion of the Dani's, happen of themselves, automatically, such as the caving in of a bank, the snapping of a rope, the cracking of dry clay etc. At all events the originator of the action is utterly irrelevant.

In accordance with this irrelevance one does not often find a combination of medial voice and intentional or voluntative aspect categories; instead one often finds a favorite combination of medial voice and contingent aspect category.

2) Curiously enough this category often occurs in those cases in which English has one verb for the action with an object and for that without an object. Cp. e.g.:

<i>hatelin</i>	"to tear (something)"	<i>hatetlasin</i>	"to tear"
<i>lipilin</i>	"to break"	<i>lipilasin</i>	"to break"
<i>jegalin</i>	"to break"	<i>jegalasin</i>	"to break"
<i>wedlelin</i>	"to dry"	<i>wedlelasin</i>	"to dry".

3) As some reflection makes clear, the result of 'getting into the state caused by the action of the root-morpheme' is: being in such and such a state, which coincides with the result of the plain (non-medial) verb; thus the result of "to get sharpened" (*gapelasin*) and that of "to sharpen" (*gapelin*) both is: "sharp" (*gapelek*). In other words: the plain verb and the medial voice category converge in the resultative aspect category. It is remarkable that, as a rule, the root-morphemes which show a restriction of their lexical meaning in members of this category (in comparison with other verb-forms), have the same restricted meaning in members of the resultative aspect category (§ 38), and the reverse. Thus e.g.:

(plain verb) <i>wasin</i>	"to strike", "to hit", "to kick", "to beat", "to defeat", "to kill"
(medial voice) <i>watlasin</i>	"to die"
(resultative) <i>watek</i>	"dead".

§ 47. The reciprocal voice category

Verbal forms like:

<i>wat-wateka</i>	"they trounce each other"	(<i>wasin</i>	"to beat"),
<i>hot-hoteka</i>	"they clean each other"	(<i>hosin</i>	"to clean"),
<i>dal-daloko</i>	"we stab at each other"	(<i>dalin</i>	"to stab"),
<i>ogot-ogotoko</i>	"we barter"	(<i>ogosin</i>	"to pay"),

are remarkable in so far as:

formally they show reduplication of the root-morpheme and a divergent set of tense/aspect-morphemes; furthermore root-morpheme-final *s* is always replaced by *t*, even before a vowel; semantically they entail the information that the actors are in mutual relation of actor and object.

Use.

This category is used only with plural actor.

Practically always the word *ebisak* is added preceding the verbal form. This word with possessive prefix means "self": *nebisak* "I myself", *ninebisak* "we ourselves", "we, personally etc. (for 'possessive prefixes' cp. § 112). In this reciprocal voice category it is used without prefixes, and then means: "mutually".

Remark.

As a curio the verb *watan* may be mentioned, meaning "to hurt oneself" (cp. *wat-watan* "to hurt each other"), because this verb is perhaps the initiator of a new category. Actions in which actor and object are identical, such as "to hurt oneself", are expressed with the aid of a rather clumsy and long-winded category (of dubious productivity), e.g.:

negakatek enhe hothakhylahy "I am cleaning myself" from *hosin* "to clean" (for "reflexive voice category" cp. § 104 B).

Thus for "I hurt myself" one should say:³⁹

**negakatek enhe wathakhyky*.

Semantically the same is expressed with *watyky* (from *watan*), which might well be the starting-point of a new emerging category.⁴⁰ Once

³⁹ Actually this form was never heard; whether it exists, is unknown; probably it is blockaded by *watyky*.

⁴⁰ Pursuing this assumption the writer gave it a trial: not looking at one of his informants, he said to him: "*hotan*", and immediately the informant looked at his belly to see whether he was dirty. This *hotan*, non-existent, was formed from *hosin* "to clean" by analogy with *watan-wasin*.

the curious form

wat-watotoko was heard, apparently meaning:
“we are scuffling (in sport)”.

§ 48. The first object voice category

The first of the object voice categories is found in forms like:

<i>isatnesin</i>	“to cook for me”	cp. <i>isasin</i>	“to cook”
<i>hetatnesin</i>	“to seek for me”	cp. <i>hetasin</i>	“to seek”
<i>jagulnesin</i>	“to teach me”	cp. <i>jagulin</i>	“to teach”
<i>hymatnesin</i>	“to hide for me”	cp. <i>hymasin</i>	“to hide”.

Formally one finds the element *nes* following the root-morpheme and preceding the aspect-morpheme of the infinitive.

Semantically these forms indicate an action for the benefit of the speaker; sometimes this benefit consists of the permission for the speaker to perform the action; thus:

isatnesin “to cook for me” may also mean:
“to allow me to cook”.

How the speaker benefits from the action, (either an action on his behalf or a permission to act,) will in most cases be clear from the situation in which the form is used.

Thus betraying similar formal features and a common semantic element, the forms given above, are entitled to be called members of a category, viz. of the first object voice category.

When exploring this category further one meets with forms like:

<i>isatnesikin</i>	“sg. actor will cook for me”,
<i>isatnethe</i>	“he (she) cooked for me recently”,
<i>isatnesoakai</i>	“you (or: they) together must cook for me”,
<i>isatnesusak</i>	“wishing to cook for me”.

No forms were found with the same person acting as actor and object.

These and other comparable forms show that the object-category under discussion is of another order than the actor-categories and the tense- or aspect-categories of the Parts A and B of this chapter. They show furthermore that the object-morpheme follows the root-morpheme, preceding the tense or aspect and actor-morphemes, and that the tense or aspect-morphemes are affixed to the object-morpheme in exactly the same way as to root-morpheme, cp.

isasin "to cook",
isathe "he cooked",
isatnesin "to cook for me",
 according to the rule of § 2.

In view of these observations one can treat the verbs with infixes in the first person singular object in the same way as the verbs discussed in Parts A and B, except for the following restrictions:

- a) all object-categories are mutually exclusive, so that no other object-voice may be combined with forms of the shape given above.⁴¹
- b) forms of this type do not occur with 1st p. actor, neither singular nor plural.
- c) never found with this category were members of:
 - deputative adhortative aspect category (§ 27),
 - durative aspect category (§ 37), and
 - resultative aspect category (§ 38).
- d) verbs with this 1st p. sg. object infixes in them have, for a command to one hearer, two mutually competitive forms (both of them productive), viz. members of the 2nd p. sg. adhortative aspect category (§ 19), e.g.

isatnesin "cook for me"

and forms of the "familiar adhortative aspect category" (to be treated in § 49), e.g.:

isatnom "cook for me".

- e) when forms of this type are the (first) component in "composite verbs", in which *wesin* is the second component, the initial consonant *w* of *wesin* is never dropped.⁴²

All observations on the forms discussed in this section, apply, *mutatis mutandis*, to forms like:

isathesin "to cook for you (sg.)",
hetathesin "to seek for you",
jagulhesin "to teach you",
hymathesin "to hide for you",

and to forms like:

⁴¹ Compare, however, § 50 Remark 3, and § 106, C and D.

⁴² Although a morphological description needs not give "explanations", we may point to the "composite present tense" of § 53 with which a compound with *wesin* would be homophonous if the *w* were dropped.

<i>isatesin</i>	“to cook for him (her)”,
<i>hetatesin</i>	“to seek for him”,
<i>jagulesin</i>	“to teach him”,
<i>hymatesin</i>	“to hide for him”.

In other words: these first object voice verbs may, within the limits of the restrictions given above, be considered as normal verbs which have infixes in them a formal element indicating the object. These object-infixes are:

<i>nes</i>	for 1st p. sg. object,
<i>hes</i>	for 2nd p. sg. object, and
<i>es</i>	(or zero) for 3rd p. sg. object.

These elements are always infixes after the root-morpheme preceding all other tense- or aspect- and actor-morphemes.

Fundamentally the same can be said about the verbs with a plural object, although they can only be followed by secondary tense or aspect-morphemes. They are:

<i>nys</i>	for 1st p. pl. object,
<i>hys</i>	for 2nd p. pl. object, and
<i>ys</i>	(or zero) for 3rd p. pl. object.

Thus e.g. for *hymasin* “to hide”:

<i>hymatnysan</i>	“to hide for us”,
<i>hymathysan</i>	“to hide for you (pl.)”,
<i>hymatysan</i> (or <i>hymasin</i>)	“to hide for them”.

Apparently each of the forms mentioned above with a sg. as well as with a pl. object, is categoric.

The similar formal and semantic equipment (apart from the person of the object) enables us to treat these six categories under one heading, viz. that of the first object voice category.

Formally this category is characterized by the infixes:

<i>nes</i>	for 1st p. sg. object,
<i>hes</i>	for 2nd p. sg. object, and
<i>es</i>	for 3rd p. sg. object

infixes between the root-morpheme and any tense or aspect-morpheme; and by

nys for 1st p. pl. object,
hys for 2nd p. pl. object, and
ys for 3rd p. pl. object
 infixes between the root-morpheme and any secondary tense-
 or aspect-morpheme. Moreover for 3rd p. sg. and pl. zero-infix.

S e m a n t i c a l l y this category entails the information that the action is performed for the benefit of the human beings or pigs represented by the object-infixes.

Remarks.

- 1) This category is used only when the object is either a human being or a pig (or the respective plural). This applies not only to the third person, but also to the second person (the Dani's often address their pigs).
- 2) In third person object forms (sg. and pl.) this category is often *not* used; instead one uses zero object-morpheme followed by the tense- or aspect-morphemes, in other words, the plain verb.
- 3) With 1st object voice we find a composite present tense (§ 53).
- 4) With 1st object voice we find some unproductive categories, to be discussed in § 100 and § 106.

§ 49. The category of the familiar adhortative aspect

Forms of the shape:

<i>isatnom</i>	"cook for me"	cp. <i>isasin</i>	"to cook",
<i>wetatnom</i>	"roast for me"	cp. <i>wetasin</i>	"to roast",
<i>banom</i>	"cut for me"	cp. <i>balin</i>	"to cut"
<i>balnom</i>	"cut for me"		
<i>lipilnom</i>	"peel for me"	cp. <i>lipilin</i>	"to peel"

and others of comparable structure have as their categoric traits:
f o r m a l l y aspect-morpheme *nom* following the root-morpheme, the
 final consonant of which if *l* may be dropped;
s e m a n t i c a l l y a mild request to the (sg.) addressee to perform
 the action of the root-morpheme for the benefit of the speaker.

Remarks.

- 1) One cannot determine whether and to what extent each of the three semantic moments (speaker, hearer, and request) have repercussions in the formal equipment of this category. At most one can oppose this

category to that of the 'deputative adhortative aspect' (§ 27), in which however the same semantic moments occur, be it in a somewhat different semantic grouping.

2) This category is beyond doubt productive. Members of this category are always interchangeable with forms of the same root-morpheme in first object voice with 1st p. sg. object-morpheme and 2nd p. sg. adhortative aspect-morpheme, or in examples:

isatnom "cook for me" is always interchangeable with:
isatnesin; thus also
jagulnom "teach me" with:
jagulnesin.

There seems to be a slight shade of difference in use between the two categories, in so far as the category under discussion seems to be a bit milder; see, however, the 'Preliminary remark' of § 29.

Although the term 'familial' as a denomination of this category is an overstatement, it is used by lack of a better name. At all events the difference between the two categories is so small that one is entitled to consider them as two mutually competitive and productive categories.

§ 50. The second object voice category

The subject-matter of this section is forms like:

hikkhalnapin "to untie me", "to undo my handcuffs"
 cp. *hikkhalin* "to untie"
salnapin "to cover me"
 cp. *salin* "to cover"
iktnapin "to initiate me"
 cp. *ikisin* "to initiate (a woman)"
dalnapin "to stab at me"
 cp. *dalin* "to stab"
gulnapin "to educate me"
 cp. *gulin* "to educate".

Apparently these forms are categoric: whenever the formal element *nap* is inserted between the root-morpheme and the aspect-morpheme of the infinitive, the lexical meaning is modified in such a way that the speaker is described as undergoing such and such an action in an attitude of more or less passivity. How far this passivity goes depends in a large degree on the lexical meaning.

Opposing these forms are forms like:

<i>hikkhalhapin</i>	"to untie you (sg)",
<i>salhapin</i>	"to cover you",
<i>ikithapin</i>	"to initiate you"
<i>dalhapin</i>	"to stab at you",
<i>gulhapin</i>	"to educate you".

Opposing each of these two types of verbs, and each other as well, are the forms:

<i>hikkhalapin</i>	"to untie him (her)"
<i>salapin</i>	"to cover him"
<i>hikkhalninapin</i>	"to untie us"
<i>salninapin</i>	"to cover us"
<i>hikkhalhinapin</i>	"to untie you (pl.)"
<i>salhinapin</i>	"to cover you"
	and
<i>hikkhalinapin</i>	"to untie them"
<i>salinapin</i>	"to cover them".

Six object-distinctions come to the fore from a comparison of these forms. However, because they "behave" in a similar way, they are treated here for the sake of shortness as one category, viz., the second object voice category.

Members of this category show:

f o r m a l l y the object-morphemes

<i>nap</i>	for 1st p. sg. object,
<i>hap</i>	for 2nd p. sg. object,
<i>ap</i>	for 3rd p. sg. object,
<i>ninap</i>	for 1st p. pl. object,
<i>hinap</i>	for 2nd p. pl. object, and
<i>inap</i>	for 3rd p. pl. object

following the root-morpheme and preceding all other morphemes;

s e m a n t i c a l l y an action in which the person(s) or pig(s), represented by the object-morphemes, undergo the action of the root-morpheme more or less passively.

Remarks.

1) This description of the semantic content of the category is rather poor, but has the advantage of covering practically all cases falling under

this category. As a rule each lexical meaning in its own way influences and interprets the categoric meaning.

2) With the second object voice category we find a composite present tense (§ 53).

3) Two instances were found contradicting the statement in § 48 sub a, viz. that all object-voices are mutually exclusive. They are:

gokotnapin "to bring me up", "to educate me",

gokothapin "to bring you up" etc.,

and:

weinvmothanapin "to create me",

weinvmvithehapin "to create you" etc.

(of the latter verb only some forms were met with; what e.g. the forms for 3rd p. object are like, is unknown).

In both verbs different manners of affixation are applied. A further discussion of these remarkable forms is omitted here because of their limited scope.⁴³

§ 51. The third object voice category

The verbs that come under the heading of third object voice category are taken together here as a unity, although strictly speaking we should speak of four third object voice categories. This hampers the description, to be true, but furthers the clarity.

This category requires special attention because it may even affect the root-morpheme.

In this category one finds forms like:

lakhanin "to set me going", "to send me"

cp. *lan* "to go"

but also:

laphanin and *la'hanin*;

isathanin and

isakhanin "to set me cooking", "to urge me to cook",

cp. *isasin* "to cook"

wetathanin "to urge me to roast"

cp. *wetasin* "to roast"

hothanin and

⁴³ Possibly the verb *weinvmothan* was recently created under the influence of the christian Message.

<i>hot'dlanin</i>	"to have me clean", but also: "to have mercy on me", "to forgive me" cp. <i>hosin</i> "to clean"
<i>hanin</i>	"to put the blame on me", also: "to infect me" cp. <i>hin</i> "to put".

Likewise one finds forms like:

<i>lakhinanin</i>	"to send us"
and also: <i>laphinanin</i> and <i>la'hinanin</i>	
<i>isathinanin</i> and <i>isakhinanin</i>	"to have us cook"
<i>wetathinanin</i>	"to have us roast"
<i>hot'dlinanin</i>	"to forgive us", "to spare us"
<i>hinanin</i>	"to put the blame on us", "to infect us";
furthermore such forms as:	
<i>lakhakan</i>	"to send you (sg.)"
also: <i>laphakan</i> and <i>la'hakan</i>	
<i>isathakan</i> and <i>isakhakan</i>	"to have you (sg.) cook"
<i>hakan</i>	"to put the blame on you", "to infect you (sg.)"
and such as:	
<i>lakhinakan</i> , or <i>laphinakan</i> , or <i>la'hinakan</i>	"to have you (pl.) go", "to send you"
<i>isathinakan</i> or <i>isakhinakan</i>	"to have you cook",
<i>hinakan</i>	"to blame you", "to infect you". ⁴⁴

All of the forms given in the four series above are categoric with respect to the person who is urged to perform the action of the root-morpheme or has any other relation to that action. Furthermore all four categories are productive and mutually exclusive.

They are taken together here as one category, and described:

f o r m a l l y by object voice morphemes

<i>han</i>	for 1st p. sg. object, and
<i>hinan</i>	for 1st p. pl. object

following the root-morpheme and preceding the tense or aspect- and actor-morphemes; and

<i>hak</i>	for 2nd p. sg. object, and
<i>hinak</i>	for 2nd p. pl. object

⁴⁴ Strictly speaking we should spell: *hhinakan*, and also *hhanin*, *hhinanin*, and *hhakan*.

No prolonged aspiration, however, is heard.

following the root-morpheme and preceding the secondary tense- or aspect-morphemes and the actor-morphemes;
 semantically by the information that the action is forced upon the object represented by the infix object-morpheme.

Remarks.

1) When seeing the translations of *hot'dlanin* "to have me clean (something)" and "to have mercy on me", and of *hanin* "to put the blame on me" and "to infect me" one feels at that extremity of the morphology which borders on the field of the lexicon. Often special meanings are extant which cannot be predicted, and for which one has to rely on the lexicon.

2) Also the formal side of this category sometimes must be supported by the lexicon, namely concerning the existence or non-existence of variant forms (like *laphanin* and *la'hanin* beside *lakhanin*, about *hot'dlanin* beside *hothanin* etc.), as:

- a. sometimes, in an unpredictable way, the root-morpheme-final *t* is followed by *'dl* instead of the initial *h* of the object voice morphemes.
- b. sometimes, in an equally unpredictable way, root-morpheme-final *t* is replaced by one of the other stops/fricatives *k* or *p*, or by *'*.⁴⁵
- 3) For the differences in root-morpheme-final consonant compare what was said about the same phenomenon in §§ 44 and 46.
- 4) With third object voice we find a composite present tense (§ 53).

§ 52. The 1st, 2nd, and 3rd object voice categories in retrospect

Surveying the three object voice categories 'with infix object', one wonders where these infixes are.

They were wilfully neglected in the preceding sections to prevent an extensive and top-heavy description. A fuller scrutiny seems advisable to see whether and in how far a deeper analysis can be made.

Resuming what was termed 'object-morphemes' or 'object voice morphemes' one finds:

a)	b)	c)
<i>nes</i>	<i>nap</i>	<i>han</i>
<i>hes</i>	<i>hap</i>	<i>hak</i>

⁴⁵ The forms given above with root-morpheme *lak* pertain to a special case, which will be treated later on (§ 106 D).

<i>es</i>	<i>ap</i>	
<i>nys</i>	<i>ninap</i>	<i>hinan</i>
<i>hys</i>	<i>hinap</i>	<i>hinak</i>
<i>ys</i>	<i>inap</i>	

A. The forms with infixes of series a) show semantically:
 a special relation of the action to the object,
 the person of the object,
 the number of that person,
 a blockade of the tense- or aspect-morphemes (as described in
 Parts A and B of this chapter) in the three plural forms.

The person of the object is apparently expressed by

n for 1st person,
h for 2nd person, and
 zero for the third person.

These formal elements show a striking resemblance with the possessive prefixes for inalienable relations (family relationship, members of the body, personal belongings etc., to discussed in § 112), e.g.:

neilegen "my eyes"
heilegen "your eyes"
eilegen "his (her) eyes"
nineilegen "our eyes"
hineilegen "your eyes"
ineilegen "their eyes".

Note that the formal characteristic of the plural of these possessive affixes is different from that found with the forms of series a).

The number of the 'object-morphemes' above corresponds to the vowels *e* and *y* resp. for singular and plural. There are a few instances in another field of the language in which a more or less comparable phenomenon appears, e.g. in the pairs:

jegetek "boy" and *jygytvky* "boys", or:
he "woman" and *hymy* (and: *humy*) "women".

The special relation between action and object then must be put down to the formal element *s*, which formally is often replaced by *t* (§ 2), because this is the only formal element common to all six forms.

The blocking of the tense and aspect-categories in the three

plural forms by the secondary tense and aspect-categories cannot be explained at the present stage of research. It cannot be linked to the plural number as it occurs in 2nd p. sg. in third object voice. Summing up we find:

- person-indices which, at least for the plural, are curious;
- number-indices which are not supported categorically in other fields of the language;
- voice-index *s* which is too weak to resist the morphonological rule of § 2;
- in plural object-form a blockading of the tense- and aspect-categories.

Nevertheless the totality of e.g. *nes* shows unambiguously that the action is directed to the benefit of the speaker. In other words: even if the one or more categories playing a rôle in the different 'object-morphemes' cannot be analyzed completely, the total resultant form is apparently categoric.

So long as all elements influencing the object-morphemes are not accounted for completely, we prefer to remain on the safe side. Therefore the description given above (§ 48) is sustained here: though not exhaustive, it is at least not incorrect.

B. Between the series sub b), viz.:

nap
hap
ap
ninap
hinap
inap

and the possessive affixes of such a series as:

neilegen "my eyes"
heilegen "your eyes"
eilegen "his (her) eyes"
nineilegen "our eyes"
hineilegen "your eyes"
ineilegen "their eyes" there is a striking similarity.

The **p e r s o n** is indicated by the formal elements

n for 1st person,
h for 2nd person, and
 zero for 3rd person,
 prefixed to the formal element *ap*, and the noun *eilegen* resp.

The number is indicated by
 zero for singular, and
in for plural,
 infixes between the person-index and the formal element *ap* or
 the noun *eilegen* resp.

Since the object-morphemes of the second object voice category somehow contain information about
 the person of the object,
 the number of that person, and
 a certain relation between action and object,
 the latter semantic moment must by elimination necessarily be put down to the formal element *ap*.

The description of the second object voice category can therefore be re-formulated here as follows: this category is characterized formally by voice-morpheme *ap* to which are prefixed person- and number categories, following the root-morpheme and preceding all other morphemes;
 semantically by the information that the object undergoes the action of the root-morpheme more or less passively.

Remark.

The pronominal and number categories will be discussed in due time. Suffice it here to say that when functioning in the second object voice category, they are always voiced, except in whispered speech.

C. The series of what was termed 'object-morphemes of the 3rd object voice category' also needs further study. They are:

han
hak
 zero
hinan
hinak
 zero

with the annotation that with 2nd p. object only secondary tense and aspect-morphemes are used.

These formal elements *han*, *hak*, etc. somehow transmit threefold information, viz. about:

the person of the object,
 the number of that person, and
 a special relation between action and object,

and entail a restriction, viz. that in forms with 2nd p. object only secondary tense and aspect-categories are used.

The *person* appears from the comparison of *han* and *hak*, with at least a certain degree of probability: both have in common the number and the special relation. Formally they differ in the elements *n* versus *k*, and semantically in the person of 1st vs. 2nd person (if, for a moment, we forget the restriction, quoted above). The element *n*, as was seen above, is the clue for first person; for 2nd person however it is not *k* but *h*.⁴⁶ These observations are confirmed when we compare 1st p. pl. with 2nd p. pl.

The *number* of the object is less obscure: when opposing sg. forms *han* and *hak* to plural forms *hinan* and *hinak*, the formal element *in* coincides with the semantic moment of plural number. Looking at the personal affixes in *neilegen* "my eyes" and *nineilegen* "our eyes", we see the same formal and the same semantic phenomena appearing, albeit in a grouping different from the forms under discussion: in *nineilegen* it follows the person-affix, in *hinan* it precedes the affix. The same observations can be made with 2nd p. forms.

The *special relation* proper to third object voice category can only be put down to what remains after subtraction of 'person' and 'number', and possibly to the total formal make-up of the forms (if again, for a moment, we neglect the restriction, quoted above). This remnant is *ha* (or '*dla*').

The *restriction* of forms with 2nd p. object to secondary tense and aspect-morphemes at the present stage of research cannot be explained. Whether the mere presence of *k* causes the shift to secondary tense/aspect-morphemes, or possibly vice versa, cannot be said; in fact verbs with root-morpheme-final *k* do not occur with what could be termed the 'primary' tense/aspect-morphemes, i.e. those of Parts A and B of the present Chapter (cp. § 31 conclusion).

At the present stage of research one simply has to accept the restriction as a datum, unexplained, but to be reckoned with.

Consequently one cannot say whether and in how far the totality affects the special relation between action and object and/or the obligatory use of secondary tense- or aspect-morphemes with 2nd p. object.

⁴⁶ This is no insuperable difficulty, for in another field of Dani morphology one finds *h* varying with *k*, viz. when with secondary tense or aspect-morphemes the vowel *a* precedes stem-final *k*, this *k* sometimes is replaced by *h* (before a following *ɣ*); cp. § 12.

As the consequence only an unsatisfactory description of the third object voice can be given, as in summary:
 the personal index for 2nd person *k* nowhere occurs save in this constellation; though resembling categoric forms, it is unique;
 the number-index for the plural is confirmed in other fields of Dani morphology;
 the relation action-object cannot clearly be put down to an unambiguous formal element;
 the obligatory use of secondary tense of aspect-morphemes is unaccounted for;
 the total formal equipment shows (in plural forms) an infix in an infix, viz. number-index *in* in voice-index *ha*, which is at least curious.

Therefore we prefer here to be on the safe side and to stand by the description of this category in § 51.

§ 53. The category of the composite present tense

Apart from compounds with *wesin* "to come", *lan* "to go", and *lokön* "to keep . . . ing", another group of forms is possible which look like a compound of verbs of the 1st, 2nd, and 3rd object voice category, viz. with the verb *akasin* "to be". This compound, however, is only used for the present tense.

With respect to composition this type of verb is categoric, and productively so, in so far as corresponding with any member of the 1st, 2nd, or 3rd object voice categories a compound may be formed with the verb *akasin*. The second component, *akasin*, however, is for many categories blockaded by unproductive categories.

Those verbs in 1st, 2nd, or 3rd object voice which have secondary tense- or aspect-morphemes (which e.g. have aspect-morpheme *an* in the infinitive) are seldom used as a component in the composite present tense.

Members of this category have a construction like:

<i>hunetnesi-aka</i>	"he lights for me (a cigarette)"
<i>hunethesi-ahy</i>	"I light for you (sg.)"
<i>hunetesi-aken</i>	"you light for him (her)"
<i>hunetnysa-akep</i>	"you (pl.) light for us"
<i>hunethysa-ako</i>	"we light for you (pl.)"
<i>hunetysa-akeikha</i>	"they light for them"

or:

<i>hikkhatnapi-aken</i>	“you (sg.) untie me”
<i>hikkhatapi-ahy</i>	“I untie him (her)”
	or:
<i>isathani-akep</i>	“you (pl.) set me cooking”
<i>isathakai-ako</i>	“we set you (sg.) cooking”
<i>isathinakai-ako</i>	“we set you (pl.) cooking”.

The total formal equipment of these forms comprises the verb with voice-morpheme in an appropriate stem, and the verb *akasin* in the present tense.

The stem is: root-morpheme, followed by object-morpheme, followed by:

i for 1st object voice with sg. object,
for 2nd object voice, and
for 3rd object voice with 1st p. object;

ai or *a*

for 1st object voice with pl. object, and
for 3rd object voice with 2nd p. object.

Note: in forms of the latter group (with *ai* or *a*-stem) there is free variation between *ai* and *a*. Forms belonging to this group, as said, are seldom used

The semantic characteristic of this category is the information that the actor performs the action of the root-morpheme with a certain relation to the object.

Remarks.

1. In anticipation of a fuller treatment, here are the present tense forms of *akasin*:

<i>ahy</i>	“I am”
<i>aken</i>	“you (sg.) are”
<i>aka</i>	“he (she, it) is”
<i>ako</i>	“we are”
<i>akep</i>	“you (pl.) are”
<i>akeikha</i>	“they are”.

2. For the sake of interest here are some forms which may create confusion:

<i>isathethylako</i>	“we are cooking for you (sg.)”
<i>isathesi-lako</i>	“we go to cook for you”
<i>isathesi-ako</i>	“we cook for you”
<i>isathetiako</i>	“he (she) is cooking for you”.

Part D. Secondary categories of actor-forms.

§ 54. Preliminary remark

Several times in the preceding sections mention was made of 'diverging' or 'secondary' tense or aspect-morphemes, such as with the 1st object voice category with a plural object, with the energetic voice, reciprocal voice etc.

Often when a verb-form contains an object-morpheme, the tense and aspect-categories described in Parts A and B (for briefness' sake we will call them henceforward: 'normal' or 'primary' categories), are blocked by other categories. These 'other categories' are called here 'secondary' because they never occur (save in a handful of verbs to be treated later) in object-less verbs, but always in the train of voice-morphemes.

Not all of the normal categories are blockaded by secondary categories. Thus there is a secondary category for the infinitive, e.g.:

wat-watan "to hit each other" cp. *wasin* "to hit", but not for the contingent aspect, e.g.:

wat-watanoko "running the risk of hitting each other", as compared with *wasinoko* "running the risk of hitting".

Where in the preceding sections it was said that such and such a voice-morpheme 'entails a different set of tense/aspect-morphemes (or: secondary tense/aspect-morphemes)', the idea was that the normal categories are used for those tenses and aspects which have no secondary category with the same function beside them, but that the secondary categories which do exist are obligatory for such verbs.

In the following sections the secondary categories will be discussed briefly, roughly in the same sequence as was done in the preceding sections: first the infinitive and the actor-forms, and afterwards the actor-less forms.

§ 55. The secondary category of the infinitive

In the preceding sections forms were already met with having an infinitive-form deviating from that of § 1, e.g.:

<i>isatnysan</i>	"to cook for us"
<i>isathan</i>	"to cook thoroughly"
<i>wat-watan</i>	"to hit each other"
<i>lakhakan</i>	"to have you go".

The common elements in these forms, raising them to the level of members of a category, are:

formally aspect-morpheme *an* following the voice-morpheme;
semantically the absence of any information about actor, time, or
aspect.

Use.

This category, as far as its use is concerned, is comparable to the
category of the infinitive (§ 1), e.g.:

jythoko, isathan "like this is cooking thoroughly"

hybyty isatnysan halok-he, hano "if somebody cooks sweet potatoes for
us, then it's all right".

Remark.

The members of this category are homophonous with those of the
2nd p. sg. adhort. aspect category.

Although the latter may be considered as a special use of the infinitive
forms they are here wilfully kept apart from the former on account of
their meaning and use.

§ 56. The secondary near future tense category

The forms:

isatnyssekyn or *isatnyssekein* "sg. actor will cook for us" cp. *isasin* "to
cook"

isathekyn or *isathekein* "sg. actor will cook thoroughly"

lakhakekyn or *lakhakekein* "sg. actor will send you (sg.)" cp. *lan* (stem
lak) "to go"

and other forms of comparable structure are categoric and have as
their

formal feature: tense-morpheme *ekyn* or *ekein* in free variation
following the voice-morpheme; and as their

semantic feature: the information that one actor will perform in
the near future the action of the root-morpheme in a certain
relation to the object.

Use.

All that was said in § 3 about the use of near future tense applies
to the secondary near future tense as well. What was said in the „remark“
of § 3 does not apply, however, to the category under discussion.

This category is not used with the reciprocal voice.

Remark.

In Dani there occur several pairs of words in free variation, one of

which has *y* whereas the other has *ei*, e.g.: *lyhygen* and *leiheigen* "hail".

The choice between the *y*- and *ei*-forms is a matter of phonology which falls outside the scope of the present work.

§ 57. The category of the secondary apophonic near future tense

Comparable to members of the apophonic near future tense (§ 4) are forms like:

isatnysvkvn or *isatnysokoin* "you (pl.) or they will cook for us" cp. *isasin* "to cook", *isatnysan* "to cook for us"

isathvkvn or *isathokoin* "pl. actor will cook thoroughly" cp. *isathan* "to cook thoroughly"

wat-watvkvn or *wat-watokoin* "pl. actor will beat each other" cp. *wasin* "to beat" etc., *wat-watan* "to beat etc. each other"

lakhvkvn or *lakhokoin* "pl. actor will send"

lakhakvkvn or *lakhakokoin* "we (or they) will send you (sg.)" cp. *lan* (stem *lak*) "to go" *lakhan* "to make go", "to have go" *eilegen* *lakhan* "to look", "to direct the eyes (*eilegen*)" *lakhakan* "to have you (sg.) go".

These forms are categoric and are characterized formally by tense-morpheme *vkvn* (or in free variation: *okoin*) following the root-morpheme and the voice-morpheme; semantically by the information that plural actor will perform in the near future the action of the root-morpheme in a certain relation to the object, this relation being indicated by the voice-morpheme.

When comparing these forms with those of the preceding section, one finds a tense-morpheme of comparable shape save for the vowels. Therefore this category was called 'apophonic'.⁴⁷

Use.

This category is used, *mutatis mutandis* for the number of the actor, in the same cases in which the secondary near future tense is used (cp.

⁴⁷ Strictly speaking all future tense categories can be considered as either near future tense or apophonies of near future tense, cp. *isasikin*, *isasukun*, *isathekein*, *isathvkvn*. Still we prefer to stand by the classifications as given above. This standpoint is based on the conviction that further study some day will reveal a rule governing the distribution of the vowels (except *a* perhaps) and vowel-clusters *ei*, *oi*, and *ou* in relation to velar fricatives and liquids; cp. what was said in § 12, note 18.

§ 56 and § 3 sub "Use"). Note that the present category functions also with the reciprocal voice category.

Remark.

The free variation between tense-morpheme *vkvn* and *okoin* is comparable to the one found in different pairs of words in Dani one of which has *v* whereas the other has *o* or *oi*. E.g.: *akvn* or *akoin* "husband", *weinvm* or *weinom* "visible". Whether there is any rule governing these cases, especially in relation to liquids following the vowels concerned, is a matter of phonological interest, and falls outside the scope of this book.

§ 58. The secondary indefinite future tense category

The forms:

<i>wetathasekyn</i>	(or: <i>wetathasekein</i>) "sg. actor will roast thoroughly in the indefinite future"
	(cp. <i>wetasin</i> "to roast")
<i>wetathasokvn</i>	(<i>wetathasokoin</i>) "pl. actor will roast etc."
<i>jagulnysasekein</i>	"sg. actor will teach us etc."
<i>jagulnysasokvn</i>	"pl. actor will teach us etc."
<i>lakhinakasokvn</i>	"pl. actor will send you (pl.)"
<i>lekethasekein</i>	"sg. actor will stop (something)"
<i>lekethasokvn</i>	"pl. actor will stop (something)",

these forms show, when opposed to the near future and the apophonic near future tense, a formal element *as* and a semantic connotation that the action will take place in a far and/or indefinite future.

The stable and predictable bond between these formal and semantic features are symptomatic of a category, viz. of the secondary category of the indefinite future tense, the characteristics being:

f o r m a l l y secondary future tense-morpheme *as* following the voice-morpheme, and preceding the secondary near future tense-morphemes;

s e m a n t i c a l l y the information that the action with such and such a relation to an object will be performed in the indefinite future.

Use.

This category is used in the same cases, *mutatis muntandis*, in which the indefinite future tense is used; cp. § 5.

In members of this secondary indefinite future tense category be-

longing to the energetic voice category, the causative aspect of the categoric meaning comes more to the fore than the intensitive aspect.

Remarks.

The "Remarks" of § 5 apply to this category also.

§ 59. The secondary near past tense category

<i>isathyky</i>	"I cooked thoroughly (recently)" cp. <i>isasin</i> "to cook"
<i>isathoko</i>	"we cooked thoroughly"
<i>isathysyky</i>	"I cooked for you (pl.)"
<i>sepelnyseken</i>	"you (sg.) pressed for us" cp. <i>sepelin</i> "to press"
<i>wat-watoko</i>	"we beat each other" cp. <i>wasin</i> "to beat"
<i>lakhakyky</i>	"I sent you (sg.)"
<i>lakhinakyky</i>	"I sent you (pl.)"
<i>lakhinakikhe</i>	"he sent you (pl.)"
<i>lakhinakeka</i>	"they sent you (pl.)" cp. <i>lan</i> "to go"
<i>ogot-ogotekep</i>	"you (pl.) bartered" cp. <i>ogosin</i> "to pay".

These forms, however chaotic at first glance, at further inspection reveal a root-morpheme, a voice-morpheme, and at the end of the form an actor-morpheme, with which correspond in the translations the lexical meaning, the voice-categoric meaning, and the actor-categoric meaning. The temporal information in the translations and a part of formal equipment are unexplained. These two in all given and comparable cases correspond to each other.

This unexplained part needs some further scrutiny. It has as a stable element the fricative *k* and a changing vowel, and in some forms *k* and *h*, together constituting an aspirated velar stop.

In four out of six actors the changing vowel proves homophonous with the vowel of the actor-morpheme. This applies namely to the 1st and 2nd p. sg. and pl.

For these persons the categoric meaning of near past action can be linked up with the formal feature V^hk , in which V^h stands for a vowel harmonizing with the vowel of the actor-morpheme.

With 1st and 2nd person actors this category is therefore characterized:

formally by tense-morpheme V^hk following the voice-morpheme and preceding the actor-morphemes of 1st and 2nd persons; semantically by the information that such and such an actor recently performed the action of the root-morpheme with a certain relation to an object.

What was done before in § 8 in order to clarify and to simplify the description, is done here also: the two divergent forms for 3rd p. actor are included here.

The secondary near past tense 3rd p. sg. category is characterized: formally by the tense-morpheme ikh following the voice-morpheme and preceding the 3rd p. sg. actor-morpheme;

Secondary near past tense 3rd p. pl. category is characterized: formally by the tense-morpheme ek following the voice-morpheme and preceding the 3rd p. pl. actor-morpheme.

Remarks.

1. Verbs with root-morpheme-final s , when occurring with a sg. actor in the remote past tense category, are homophonous with the secondary near past tense. Thus e.g.:

isathyky may mean: "I cooked long ago", but also:
"I (recently) cooked thoroughly".

The formal make-up of the respective forms is namely:

root-morpheme:	<i>isat,</i>
tense-morpheme:	hV^hk (here: <i>hyk</i>),
actor-morpheme:	y ; and
root-morpheme:	<i>isat,</i>
energetic-voice-morpheme:	$h,$
tense-morpheme:	$V^hk,$
actor-morpheme:	y

2. What was said about the "Use" of the near past tense category in § 7 applies to the secondary near past tense as well.

§ 60. The secondary remote past tense category

In Dani one may find forms like:

balhasyky "I cut thoroughly (long ago)" cp. *balin* "to cut";
balhan "to cut thoroughly"
isathasyky "I cooked thoroughly" cp. *isasin* "to cook"; *isathan*
energetic voice.

<i>jagulhysasikhe</i>	“he taught you (pl.) (long ago)” cp. <i>jagulin</i> “to teach” in 1st obj. voice with 2nd p. pl. object
<i>jagulhinakasuku</i>	“we had you (pl.) teach” cp. <i>jagulin</i> in 3rd obj. voice 2nd p. pl. obj.
<i>jagulnysasikip</i>	“you (pl.) taught us (long ago)” 1st obj. voice with 1st p. pl. obj.
<i>jagulhysasukha</i>	“they taught you (pl.) long ago” idem with 2nd p. pl. object
<i>wetatnysaseken</i>	“you (sg.) roasted for us long ago” cp. <i>wetasin</i> “to roast” in 1st obj. voice with 1st p. pl. object.

These forms show a root-morpheme (e.g. *wetat*), a voice-morpheme (c.g. *nys*), and an actor-morpheme (c.g. *en*), all combined in one form (c.g. *wetatnysaseken*) “you (sg.) roasted for us long ago”.

Two elements of this form are unaccounted for: the formal element *asek*, and the semantic moment that the action was performed long ago. These two are apparently interrelated as tense-morpheme and categoric meaning. However, in *isathasyky* the corresponding tense-morpheme is different, viz. *asyk*.

Both “tense-morphemes” *asek* and *asyk* can be taken together under the formula asV^hk (V^h standing for: a vowel harmonizing with the vowel of the actor-morpheme).

This formula holds good for 1st and 2nd p. pl. also, but there the actor-morphemes *o* and *e* are blocked by the high close vowels *u* and *i* resp.

Thus the secondary remote past tense category is characterized formally by tense-morpheme asV^hk following the voice-morpheme and preceding the 1st and 2nd p. actor-morphemes;

When including — as was done in § 8 — the categories which blockade the expected forms with a 3rd p. actor, viz. *asikh* and *asukh* for sg. and pl. resp., one can formulate the secondary remote past tense category as comprising:

formally a root-morpheme, followed by tense-morphemes:

asV^hk	for 1st and 2nd p. actor,
<i>asikh</i>	for 3rd p. sg. actor, and
<i>asukh</i>	for 3rd p. pl. actor,

followed by the actor-morpheme, which for 1st and 2nd p. pl. is blockaded by *u* and *i* resp.

semantically by the information that the action of the root-morpheme with a certain relation to an object was performed in an indefinite and/or remote past by such and such an actor.

Use.

This category is used in the same cases in which the remote past tense category (§ 8) is used.

§ 61. The secondary perfect past tense category

Forms that come under the heading of secondary perfect past tense are very seldom used; they look like this:

<i>sepethykytik</i>	“(after) I (had) finished pressing hard” (cp. <i>sepethan</i> : energetic voice of <i>sepelin</i> “to press”)
<i>sepethekettik</i>	“after you (sg.) (had) finished pressing hard”
<i>sepethikhesik</i>	idem with 3rd p. sg. actor
<i>sepethokosik</i>	idem with 1st p. pl. actor
<i>sepethekesip</i>	idem with 2nd p. pl. actor
<i>sepethekasik</i>	idem with 3rd p. pl. actor.

When opposing these forms to the secondary near past tense category on the one hand, viz.:

sepethyky
sepetheken
sepethikke
sepethoko
sepethekep
sepetheka

and to the perfect past tense category on the other hand, viz.:

sepelhytik
sepelhettik
sepelhesik
sepelhosik
sepelhesip
sepelhasik

we find a comparable process operating in the forms under discussion, i.e. comparable to the process which is at work in the members of the perfect past tense category, namely:

formally the formal elements *tik*, *sik*, and *si* in an obligatory distribution affixed to the actor-morphemes, following the secondary near past tense-morpheme. The distribution is:

<i>tik</i>	for 1st and 2nd p. sg.;
<i>sik</i>	for 3rd p. sg., 1st p. pl., and 3rd p. pl.;
<i>si</i>	for 2nd p. pl. infixed before the final consonant of the actor-morpheme;

semantically the information that such and such an actor finished the action of the root-morpheme with a certain relation to an object completely, so that the action mentioned may be used as a reference-point for a following action.

Use.

What was said in § 10 sub "Use" applies to the secondary perfect past tense as well.

In most of the situations in which a secondary perfect past tense form might be used, there is a preference for other forms such as those with secondary detached or secondary bound active past participles.

Thus e.g. "After he had finished waking us, he went away" instead of *ninelukuthikhesik lv laka* is preferably expressed by *ninelukuthalok lv laka* (having-awakened-us away he-went).

§ 62. The secondary habitual aspect category

The description of the habitual aspect category, as given in § 9, is valid for object-voice verbs with the only restriction that the secondary habitual aspect-morpheme *tek* follows the forms of the *secondary* near past tense.

Thus these forms have a shape like:

<i>sepethykytek</i>	"I have the habit of pressing hard" (<i>sepelin</i> "to press" in energet. voice)
<i>sepelysykytek</i>	"I have the habit of pressing for them" (1st obj. voice with 3rd p. pl. obj.)
<i>sepethekettek</i>	"you have the habit of pressing hard"
<i>sepethikhetek</i>	"he (she) has the habit etc."
<i>sepethokotek</i>	"we have the habit etc."
<i>sepethekesep</i>	"you (pl.) have the habit etc."
<i>sepethekatek</i>	"they have the habit etc."

Use.

Members of this category are very seldom used.

§ 63. The secondary category of the perfect past habitual aspect

The description in § 11 of the perfect past habitual aspect category suits its secondary counterpart, with only the annotation that the morpheme *si* is infixed before the final consonant in the aspect-morpheme of *secondary* habitual aspect category.

For the sake of completeness here is a paradigm:

<i>sepethykytesik</i>	“after I (have, had) finished pressing hard (as is my habit)” cp. <i>sepelin</i> “to press” in energetic voice <i>sepethan</i>
<i>sepelhysykytesik</i>	“(after) I (have, had) finished pressing for you pl. (as is my habit)” (1st object voice with 2nd p. pl. object of <i>sepelin</i>)
<i>sepethekettesik</i>	“(after) you (have, had) finished pressing firmly (as is your habit)”
<i>sepethikhetesik</i>	idem, 3rd p. sg. actor
<i>sepethokotesik</i>	idem, 1st p. pl. actor
<i>sepetheketesip</i>	idem, 2nd p. pl. actor
<i>sepethekatesik</i>	idem, 3rd p. pl. actor.

Use.

This category is very seldom used.

§ 64. The three secondary categories of the progressive aspect

Preliminary remark.

Progressive aspect forms of object-verbs, comparable to the forms of § 12 were very rarely recorded by the author in spontaneous speech. He even never heard forms of this type with 3rd p. sg. or pl. actor.

The secondary counterparts of near past and perfect past progressive forms were only recorded in systematic research with the aid of informants, not in spontaneous speech. Therefore it might be possible that the informants on the spur of the moment created forms by analogy which are never used in practice. Hence the writer feels bound to express some doubt as to the real existence of the near past and perfect past progressive (secondary) forms, to be discussed in this section.

Since all three secondary progressive aspect categories, as opposed to the progressive aspect categories of §§ 12, 14, and 15, all show the same characteristic, they are here treated together.

Secondary progressive aspect forms have this shape:

<i>sepelysasykhylahy</i>	“I am pressing for them” (1st object voice with 3rd p. pl. object of <i>sepelin</i> “to press”)
<i>sepelysasykhylaken</i>	idem 2nd p. sg. actor
<i>sepelysasykhylako</i>	idem 1st p. pl. actor
<i>sepelysasykhylakep</i>	idem 2nd p. pl. actor
<i>sepelysasykhylahyky</i>	“I was pressing for them”
<i>sepelysasykhylakeken</i>	idem 2nd p. sg. actor
<i>sepelysasykhylauku</i>	idem 1st p. pl. actor
<i>sepelysasykhylaiqip</i>	idem 2nd p. pl. actor
<i>sepelysasykhylahykysik</i>	“(after) I (have, had) finished pressing for them”
<i>sepelysasykhylakekettik</i>	idem 2nd p. sg. actor
<i>sepelysasykhylaukusik</i>	idem 1st p. pl. actor
<i>sepelysasykhylaikisip</i>	idem 2nd p. pl. actor.

Oposing these forms to the corresponding forms without object voice morphemes, viz.:

<i>sepelhylahy</i>	(§ 12) “I am pressing”
etc.	
<i>sepelhylahyky</i>	(§ 14) “I was pressing”
etc., and	
<i>sepelhylahykysik</i>	(§ 15) “(after) I finished pressing”
etc.,	

one finds that the secondary categories not only have an object voice morpheme, but also an element *asyk* (a few times *asyt* was recorded), so that the secondary progressive aspect-morpheme is not **hylaS*, but *asykhylaS* (in which *S* stands for the vowel-separator described in § 12).

Hence these three categories can be described against the background of the corresponding forms in §§ 12, 14, and 15, thus:

f o r m a l l y the secondary progressive aspect categories show object-morpheme, followed by secondary progressive aspect-morpheme *asyk*, infixed between the root-morpheme and the aspect-morpheme *hylaS* (*S* means: “vowel-separator”);
 s e m a n t i c a l l y they convey the information that such and such an actor is (or was, or has been) at work performing the action of the root-morpheme with a certain relation to an object.

§ 65. Irreal aspect

Forms corresponding semantically with those of § 16 were not recorded with object-verbs having secondary categories.

§ 66. General remarks on the adhortative aspect with secondary categories

In correspondence with what was said in §§ 17 and 18 forms like:

<i>sepethak</i>	“let me press thoroughly” (<i>sepelin</i> “to press” in energetic voice)
<i>lakhakak</i>	“let me send you” (<i>lan</i> “to go” in 3rd object voice with 2nd p. sg. object)
	or:
<i>sepethan</i>	“press! (you, sg.)”
<i>sepethani</i>	“press! (you, pl.)”,

are here considered to show the combined actor/aspect-morpheme *k* (for 1st p. sg.) or *n* (for 2nd p. sg.), following the stem. This formula needs a slight correction: with secondary adhortative forms the actor/aspect-morphemes are affixed not to the stem, but to the object voice morphemes followed by *a*.

Since, however, this “pseudo-stem” of voice-morpheme followed by *a* “behaves” in the same way as the stem of (plain) verbs, we might for brevity’s sake call it a “secondary stem”.

All adhortative aspect-morphemes, except 1st p. pl., follow the secondary stem, also those beginning with a vowel.

After this no special attention is needed for members of:

§ 18 1st p. sg. adhort., e.g.: *sepethak* “let me press firmly”; stem *sepet*, secondary stem *sepetha*, followed by combined actor/aspect-morpheme *k*.

Note that this form underlies the intentional aspect category with sg. actor.

§ 19 2nd p. sg. adhort., e.g.: *sepethan* “press firmly”;

§ 20 3rd p. mild adhort., e.g.: *sepethaoak* “let him (her, them) press thoroughly”.

Note that this category is the underlying form of the comitative adhort. aspect category.

§ 21 3rd p. strong adhort., e.g.: *sepethanek* “he (she, it, they) must press thoroughly”;

§ 23 2nd p. pl. adhort., e.g.: *sepethani* “press thoroughly”;

§ 24 2nd p. fut. adhort., e.g.: *sepethano* sg. and *sepethanio* pl. "press firmly (later)";

§ 25 3rd p. fut. adhort., e.g.: *sepethanok* "he (she, it, they) must press firmly (later)";

§ 26 comit. adhort., e.g.: *sepethaoakai* "pl. actor together must press thoroughly".

Forms corresponding to those of § 27 (deputative adhort.) are not found with secondary categories.

§ 67. The secondary category of the 1st p. plural adhortative

The secondary category of forms, corresponding to those of § 22 (e.g.: *sepeluok* "let us press") have combined actor/aspect-morpheme *vok* or *ouok* following the root-morpheme. Thus e.g.:

sepethvok or *sepethouok* "let us press thoroughly"

jagulysvok or *jagulysouok* "let us teach them".

Remarks.

1. The two morphemes *vok* and *ouok* are free variants.

2. Note that the members of the secondary intentional aspect category for pl. actor (§ 70) correspond (partly) in form to those of the category under discussion.

3. One might consider *vok* and *ouok* as representing the combination of *a* of the secondary stem with the 1st p. pl. adhort. aspect-morpheme *uok* (§ 22). However, this cannot be explained by a simple morphological rule, as no cases are found elsewhere in the language.

§ 68. Secondary prohibitive aspect categories

As far as known members of secondary categories do not occur in short or long prohibitive aspect categories, corresponding to the forms of §§ 29 and 30 resp.⁴⁸

The only prohibitive aspect category, known so far, is the secondary common one, comparable to that of § 31; this is discussed in the next section.

⁴⁸ A few isolated forms were noted:

hepysukusep "don't throw away" (cp. § 77 foot-note),

nesok hakkukun "don't touch my foot"

watekudek "don't hurt yourself"

wokysakun "don't give it to them"

§ 69. The secondary common prohibitive aspect category

The following phrases:

jagulysikhe hvk "don't teach them",
wat-watikhe hvk "don't hurt each other",
sepethikhe hvk "don't press so hard", or:
 "don't press !!" (emphatically),

may represent here a large number of forms, all showing formally a root-morpheme, a voice-morpheme, the formal element *ikhe*, and the (separate) adverb *hvk*; semantically a lexical meaning, a certain relation to an object, and a prohibition to 2nd p. resp.

There is always a categoric link between the prohibition on the semantic side and the formal elements *ikhe* and *hvk*; these forms resemble those of § 31 which, however, are characterized morphologically by the bi-partite aspect-morpheme *-he hvk*.

All that was said in § 31, except for the aspect-morpheme, applies to the forms under discussion.

Remark.

Note that with this category also the "verbal part" of the aspect-morpheme is homophonous with the form for near past tense 3rd p. sg. actor.

The same observation may be made in § 96 E, where the forms blockading the 3rd p. sg. of the near past tense recur as the "verbal part" in the common prohibitive aspect category. E.g.:

laka "he (she, it) goes, went recently"
laka hvk "don't go".

This curious parallelism reminds us of comparable phenomena with the intentional aspect category (§ 28) — as opposed to the 1st p. adhort. aspect categories of §§ 18 and 22 — and comitative adhortative forms (§ 26) — as opposed to 3rd p. mild adhortative aspect forms —: there an opposition is found between 1st and 3rd p. forms marked by zero morpheme and forms having intentional aspect morpheme or comitative aspect morpheme without any distinction of person.

§ 70. The secondary intentional aspect category

In secondary categories we find intentional aspect forms like:
jagulysvokoluk or *jagulysovokoluk* "pl. actor intending to teach them"
 cp. *jagulin* "to teach" in 1st obj. voice with 3rd p. pl. object.
sepethakaluk "sg. actor intending to press firmly" cp. *sepelin* "to press"
 in energetic voice
isathinakvokoluk "pl. actor intending to have you (pl.) cook" cp. *isasin*
 "to cook" in 3rd object voice with 2nd p. pl. object.

On closer inspection these forms correspond to the description of § 28 except that intentional aspect-morpheme *V^hluk* is affixed to the forms of *secondary* 1st p. adhortative categories.

Part E. Secondary categories of actorless forms

§ 71. The secondary objective infinitive category

Sentences like:

helukuthau na'yt "I don't like to wake you" (*heluk* "you awake" in causative voice; *na'yt* "my dislike")

lekethau egimo hatok weak

to-stop-it in-the-hand stiff badly, i.e.: „it is difficult to stop it" (*lek* "not" in causative voice)

jagulhysau nogot "I don't know (how) to teach you" (*jagulin* "to teach" in 1st object voice with 2nd p. pl. object; *nogot* "my ignorance"),

such sentences contain verbal forms comparable to those of § 33 (objective infinitive), with which they agree as to their semantic characteristic;

formally they have an objective infinitive aspect-morpheme *au* following the voice-morpheme.

They are called henceforward: members of the secondary objective infinitive category.

All that was said in § 33 about "objective infinitive" applies to its secondary counterpart as well.

§ 72. The secondary voluntative aspect category

All that was said in § 34 about "semantics" and "use" of the voluntative aspect category is valid also for forms like:

jagulnysausak "willing to teach us" (1st object voice with 1st p. pl. object of *jagulin* "to teach")

isathakausak "willing to set you cooking" (*isasin* in 3rd obj. voice with 2nd p. sg. obj.)

Formally they show the aspect-morpheme *ausak* following the voice-morpheme.

§ 73. The contingent aspect category

Forms like:

watanoko "running the risk of hurting oneself" or:

wat-watanoko "running the risk of hurting each other"

conform to the description given in § 35.

§ 74. The secondary idiosyncratic aspect category

Very infrequently forms are encountered of the type:

jagulnysikho

(*wetek*) "(he is) our teacher" i.e. forms having

formally aspect-morpheme *ikho* following the root-morpheme, and semantically the information that the action of the root-morpheme with a certain relation to an object is repeatedly performed as a personal habit, an idiosyncrasy, an occupation etc.

Further, all that was said in § 36 is valid for the forms under discussion.

Remark.

When opposing this secondary idiosyncratic category to the idiosyncratic category of § 36, one may be inclined to consider the element **ik* of *ikho* as the clue to the secondary category as such.

This view is not maintained here because:

1. The secondary categories are marked already as secondary by the voice-morphemes;
2. The same reasoning might be applied to the secondary categories of the objective infinitive and voluntative aspect; but then the element **a* should be considered as the clue to their secondary nature.

§ 75. Durative aspect forms in secondary categories

When tackling the problems concerning durative aspect forms in secondary categories the writer has to confess his ignorance about even the very existence of such forms.

There are some few instances of forms which might be considered as secondary durative forms, but they are not uniform in shape.

Somehow object-verbs as such seem to conflict with a semantic moment of duration, iteration, or habit (compare what was said about the different "seldom used" progressive and habitual aspect categories of §§ 62, 63, and 64); this even applies to object-verbs with the primary categories like *jagulnesin* "to teach me".

Only a few instances were recorded, e.g.:

hahinok wakanhethyk wako

(your-ignorance taking-away-for-you we-come), i.e.: "we come to inform you", or with the (improductive) fourth object-voice morphemes *as* (cp. § 108):

wenaknathyk "being angry with me all the time"

wenakhathyk "being angry with you (sg.) etc."

etc.

(*wenaknasin*,

wenakhasin "to be angry with me, you").

However from the verb *wokosin* "to haul" with improductive 1st obj. voice

woknysan "to carry us" (§ 106)

wokhysan "to carry you (pl.)"

wokysan "to carry them"

are the forms:

woknysek "all the time carrying us"

wokhysek "all the time carrying you (pl.)"

wokysek "all the time carrying them",⁴⁹

which formally resemble 1st resultative aspect forms rather than durative forms.

With the verb *eilegen hythan* "to look at (the-eyes to-direct) one finds *eilegen hythylyk* "looking at", of a still different shape, whereas a formally congruous form of *lan* "to go", viz. *lylyk*, in some dialects south of Mugogo, means "having gone" (in Mugogo this form does not occur).

At the present stage of research one had best consider these data as isolated phenomena.

⁴⁹ With sg. object this verb is a component in the "composite object voice" (§ 109):

woknatyk "all the time carrying me"

wokhatyk "all the time carrying you", etc.

§ 76. The first resultative aspect

Also the first resultative aspect category (§ 38) is not represented with object-verbs. This might already be deduced from the fact that its potential place is sometimes occupied by something like durative forms; cp. the preceding section. The author at least never found what might be termed secondary resultative forms, comparable to the forms of § 38.

§ 77. The secondary category of the detached active past participle

Semantically comparable to the members of detached active past participle (§ 39) are forms of this type:

<i>jagulnysalok</i>	"having taught us"
<i>hepysalok</i>	"having let them go away" ⁵⁰
<i>lakhakalok</i>	"having sent you (sg.)".

These forms show formally tense-morpheme *alok* following the voice-morpheme, and semantically and syntactically the same characteristics as the detached active past participle (§ 39).

Use.

What was said in § 39 about "Use" applies also to the forms under discussion.

The „Remark" of § 39 is not pertinent to the present category.

§ 78. The secondary category of the 1st bound active past participle

Forms like:

<i>isakhoko</i>	"having cooked thoroughly" (cp. <i>isakhan</i> or <i>isathan</i> energetic voice of <i>isasin</i>)
<i>bethethoko</i>	"having squeezed firmly" (cp. <i>bethelin</i> "to squeeze" in energetic voice)

show that at least the energetic voice category can form active past participles of the syntactically bound type, viz.:

⁵⁰ This verb *hepysan*, corresponding to *hete'm* or *hepe'in*, has lost in contact between Dain's and non-Dani's its object-verb character and is used for such expressions as: "Don't speak about it", "Never mind", "Forget it", "Let it rip", "Leave him to his fate", "Stop", "You can have it", "Ready", "Worthless" etc.

formally by affixation of tense-morpheme *oko* to the voice-morpheme;
 semantically and syntactically they show the same characteristics
 as their counterparts in § 40.

Use.

Forms of this category were never found with voice-morphemes other than energetic voice. For the medial voice this is self-evident, but object-voices also apparently have no bound active past participles. The relation to the object, expressed by these categories, somehow seems to be of a different nature from that which is required for the application of the syntactic restriction of § 40.

§ 79. Reduplication

Reduplication of secondary forms occurs very infrequently, e.g.:

bethethyky bethethyky mege te

“Although I squeezed and squeezed firmly”.

After what has been said in § 41 these forms do not need further explanation.

§ 80. The secondary category of the composite verbs

Members of secondary categories may form compositions of a type similar to that of § 42, with only one modification of the morphological description, viz that “stem” must be understood as:

root-morpheme, followed by voice-morpheme, followed by *a*.

E.g.:

wudlem

wokhysa-wako “we come to bring you a bird of paradise” (*wokhysan*:
 unproductive 1st object voice of *wokosin* “to give”
 with 2nd p. pl. object)

bethetha-lokon! “keep squeezing firmly!”

jokysa-lan “go tell them” (*jokysan*: unproductive 1st object voice
 of *jokosin* “to sav” with 3rd p. pl. object).

Part F. Tertiary categories

§ 81. Preliminary remarks

In § 46 (“medial voice”) a ‘fuller treatment of the divergent categories’ was held in prospect. This fuller treatment is given in the present Part.

Members of medial voice category, when occurring with certain categories, conform to the description in Parts A and B of this Chapter. Thus e.g.:

infinitive category:	<i>watlasin</i>	"to die"
near fut. tense category:	<i>watlasikin</i>	"sg. actor will die"
contingent asp. category:	<i>watlasinoko</i>	"running the risk of dying".

Other categories, however, such as near past tense or remote past tense, are not found with members of medial voice category.

Instead one finds forms like:

<i>watlaka</i>	"he (she, it) dies (or: died recently)",
<i>watlakikhe</i>	"he (she, it) died (long ago)".

It is the latter group of forms — those diverging from the description in Parts A and B — that needs a further scrutiny. For briefness' sake we will call them henceforward: "tertiary categories".

It is a curious phenomenon that the tertiary categories resemble the corresponding categories of the so-called "existential verbs" to be discussed in the next Chapter.

The tertiary categories are productive in contrast to the existential verbs mentioned.

In the following sections of this Part the tertiary categories will be discussed briefly, in roughly the same sequence as was followed in the preceding Parts.

§ 82. The tertiary actor-categories

The actor-categories for 3rd p. (*e* and *a* for sg. and pl. resp.) are blocked when occurring with tertiary near past tense category (§ 83) by the tertiary actor-categories:

<i>a</i>	for 3rd p. sg., and
<i>eikha</i>	for 3rd p. pl.

§ 83. The tertiary near past tense category

The forms:

<i>watlahy</i>	"I die" (cp. <i>wasin</i> "to beat", "to hit", "to attack", "to kill" etc.)
<i>watlaken</i>	"you (sg.) die"
<i>etatlako</i>	"we gather", "we come together" (cp. <i>etasin</i> "to unite", "to combine")

<i>etatlakeikha</i>	“they come together”
<i>watlakep</i>	“you (pl.) die”,
as opposed to their infinitive forms:	
<i>watlasin</i>	“to die”, and
<i>etatlasin</i>	“to gather”,

show that the actor-morphemes and tertiary actor-categories are affixed to the medial voice morpheme which shows the same peculiarities as were found with the aspect-morpheme *hylaS* of the progressive aspect-category: the final consonant of the medial voice morpheme *las* (§ 46) is replaced by:

h before actor-morpheme-initial *y*,
k before all other vowels (also before *u* and *i*) cp.

<i>hymatlahy</i>	“I get lost”, “I got lost”
<i>hymatlaka</i>	“he (she, it) gets (got) lost”
<i>hymatlakikhe</i>	“he (etc.) got lost (long ago)”
<i>hymatlakuku</i>	“we got lost (long ago)”
<i>hymatlako</i>	“we get (got) lost”
<i>hymatlakvn</i>	“don’t get lost, (you, sg.)”.

Semantically there is a difference as opposed to the near past tense and secondary near past tense categories. No doubt in connection with the fact that medial voice hardly ever occurs with progressive aspect categories, the functional fields which with other verbs are occupied by the near past tense category and the progressive aspect category taken together, are covered in the medial voice by the tertiary near past tense. In other words: this category functions both as a present and as a near past tense.

Summing up, one may characterize the tertiary near past tense category:

f o r m a l l y by root-morpheme, followed by voice-morpheme *las* in its appropriate shape, followed by the actor-morphemes for 1st and 2nd person actor (§ 6), or the tertiary actor-categories for 3rd p. actor (§ 82);
s e m a n t i c a l l y by the information that the actor gets or recently got into the state which is the result of the action denoted by the root-morpheme.

§ 84. The tertiary remote past tense category

Partly comparable to the members of remote past tense category (§ 8) are forms like:

<i>hymatlahyky</i>	"I got lost (long ago)"
<i>hymatlakeken</i>	"you (sg.) got lost"
<i>hymatlakikhe</i>	"he (she, it) got lost"
<i>hymatlakuku</i>	"we got lost"
<i>hymatlakikip</i>	"you (pl.) got lost"
<i>hymatlakukha</i>	"they got lost".

The show:

f o r m a l l y root-morpheme, followed by medial voice morpheme *las* in its appropriate shape (§ 83), followed by the tertiary remote past tense morpheme V^{hk} , or with 3rd p. actor by the tense-morphemes *ikh* or *ukh* for sg. and pl. resp., followed by the actor-morphemes (§ 6). The formula V^h again stands for: a vowel harmonizing with the vowel of the actor-morpheme.

s e m a n t i c a l l y the information that the actor long ago got into the state which is the result of the action denoted by the root-morpheme.

Remark.

Note the differences of this tertiary remote past tense from near past progressive forms (§ 14).

In an example:

the present category	the category of § 14
<i>hymatlahyky</i>	<i>hymathylahyky</i>
<i>hymatlakeken</i>	<i>hymathylakeken</i>
<i>hymatlakikhe</i>	<i>hymathylaikhe</i>
<i>hymatlakuku</i>	<i>hymathylauku</i>
<i>hymatlakikip</i>	<i>hymathylakikip</i>
<i>hymatlakukha</i>	<i>hymathylaukha</i>
"I (etc.) got lost (long ago)"	"I (etc.) was hiding (recently)".

§ 85. The tertiary category of the perfect past tense

Forms describing that an actor has completely got into a given state have this shape:

<i>hymatlahytik</i>	“(after) I got lost”
<i>hymatlakettik</i>	“(after) you (sg.) got lost”
<i>hymatlakasik</i>	“(after) he (she, it) got lost”
<i>hymatlakosik</i>	“(after) we got lost”
<i>hymatlakesip</i>	“(after) you (pl.) got lost”
<i>hymatlakeikhasik</i>	“(after) they got lost”.

This category is characterized formally by the tense-morphemes *tik*, *sik*, and *si* in an obligatory distribution affixed to the forms of tertiary near past tense category (§ 83); semantically by the information that the actor is or was in the state which is the result of the action expressed by the root-morpheme.

Remarks.

1. All that was said about the “Use” of the perfect past tense category (§ 10) applies (*mutatis mutandis*) to its tertiary counterpart.
2. The distribution of the tense-morphemes is comparable to that in § 61, viz.:

<i>tik</i>	for 1st and 2nd p. sg., and
<i>sik</i>	for 3rd p. sg. and pl., and 1st p. pl., following the tertiary near past tense forms;
<i>si</i>	immediately preceding the final consonant of the tertiary near past tense form for 2nd p. pl. actor.

§ 86. Habitual aspect

About medial voice in respect to habits no data are available. It is unknown whether habitual aspect categories exist with the medial voice; it seems improbable, due to the “utter irrelevancy” of the originator of the action (cp. § 46, “Remark 1”).

§ 87. Progressive aspect

Medial voice forms of the progressive type were not found.⁵¹

⁵¹ Only of one verb, viz. *jagulasin* “to study” a form was found, namely: *jagulathylako* “we sit studying”. Possibly this form was — for the benefit of the researcher — created by analogy

§ 88. Irreal aspect

No information is available. Probably it does not exist with the medial voice.

§ 89. Adhortative and prohibitive forms

In accordance with what was said in § 43, sub 3, and in "Remark 1" of § 46, adhortative and prohibitive forms can hardly be expected with the medial voice. The sporadic data recorded during the research were laid aside as being suspect.

Perhaps this attitude of suspicion need not be extended to common prohibitive aspect forms like:

hymatlaka hvk "don't get lost",

which morphologically exhibit the adverb *hvk* following a form homophonous with *that* for the near past tense with 3rd p. sg. actor.

§ 90. Intentional aspect

The intentional aspect forms of the medial voice are formed according to the procedure of § 31, i.e. by affixing the aspect-morpheme *V^hluk* to the real (or supposed) forms for 1st p. adhortative.

Considering the irrelevance of the originator of the process one would not expect such a category to exist. Nevertheless, though infrequently, it was found, with semantically a slight shift of meaning, viz. in the direction of the contingent aspect category, e.g.:

watlasikiluk "about to die"

hymatlasikiluk "being about to go astray".

Cp. their contingent counterparts:

watlasinoko "running the risk of dying", and

hymatlasinoko "running the risk of going astray".

The denomination "intentional aspect" is maintained in spite of this semantic shift, because the latter is considered as a voice-categoric interpretation of the medial voice.

§ 91. Voluntative aspect

Formally formed according to the normal pattern (§ 34), the voluntative aspect with medial voice bears a slightly different semantic character; it shifts in the direction of the contingent aspect category, e.g.:

watlasusak "being about to die", "moribund".

Remark.

In medial voice forms there is practically no semantic opposition between contingent, intentional, and voluntative aspect categories, probably because of the impact of the different categoric meanings involved.

§ 92. Other categories

The following categories were not found with medial voice:
idiosyncratic aspect (§ 36),
durative aspect (§ 37),
1st resultative aspect (§ 38),⁵²
detached active past participle (§ 39), and
composite verbs (§ 42).

⁵² As the resultative aspect form of medial voice (semantically) one may consider the resultative aspect form of the original verb; cp. § 38 "Use", and § 46, Remark 3.

IMPRODUCTIVE VERB-CATEGORIES

§ 93. Preliminary remarks

Whereas the categories discussed in the previous chapter may be applied by a speaker to any existing or newly emerging verb, there are other categories which may not be applied at will to a given verb, but are restricted to a certain number of verbs. These are called "improductive" verb-categories.

The lay-out of the present chapter comprises first a number of verbs which set themselves apart as a group with divergent categories and a certain semantic connotation. After these verbs, called here "existential verbs", a number of improductive categories will be discussed which formally or semantically resemble the productive categories; they will be treated in roughly the same sequence as that of Chapter II.

While discussing both groups of improductive verb-categories, we will make no mention of the verb *lokón* "to stay", "to remain". This verb has only a handful of forms in common with other verbs, but, of course, the fact that the other categories are blockaded is of morphological interest; in an appendix those forms which *lokón* shares with other verbs will be enumerated.

§ 94. The improductive categories of the existential verbs

A number of verbs, all of them denoting some kind of being ("to be", "to exist", "to lie" and the like) have in several categories forms which diverge from the pattern, to be expected on the basis of the description in Chapter II.

These verbs are:

menasin "to stand"
welasin or
weilasín "to lie"
belasin "to fall"

<i>biasin</i>	"to fall"
<i>wesin</i>	"to come"
<i>gisin</i>	"to enter" ⁵³
<i>apelasin</i>	"to turn round"
<i>akasin</i>	"to be", "to become"
<i>welakasin</i>	"to be", "to exist", "to stay"
(<i>lan</i>	"to go").

Curiously enough, where these verbs deviate from the pattern of the categories of Chapter II A and B they have forms which are homophonous with those of the tertiary categories (Chapter II, F). Because of this homophony there is no reason to enter at length upon the description of the formal equipment of these categories: that would only be a duplication of the Part F quoted.

Instead an adequate description of the existential verbs can be given by:

1. labeling as "pseudo-tertiary" categories those existential verb-categories which are homophonous with the tertiary categories, and by referring to the tertiary categories for their formal make-up;
2. not mentioning those categories which conform to the description of the categories in Chapter II, Parts A and B;
3. stating that the pseudo-tertiary categories block the forms of the normal categories;
4. enumerating the categories in which no forms of these verbs occur.

To the existential verbs also belongs the verb *lan* "to go" which, however, has forms homophonous with secondary categories, where the other existential verbs have the categories known from the previous chapter. Extending the terminology we could term these categories: "pseudo-secondary categories".

Summing up we can state that the existential verbs have:

either	the 'normal', casu quo the pseudo-secondary categories,
or	the pseudo-tertiary categories.

Omitting the 'normal' (c.q. pseudo-secondary) categories, we can begin with the pseudo-tertiary categories.

⁵³ *giesin* is also found. Historically the verb *gisin/giesin* might be some sort of compound with *wesin* as its second element.

§ 95. The root-morphemes of existential verbs

The root-morphemes of the existential verbs are:

<i>menas</i>	("to stand")
<i>welas</i> , or	
<i>weilas</i>	("to lie")
<i>belas</i>	("to fall")
<i>bias</i>	("to fall")
<i>wes</i>	("to come")
<i>gis</i> (<i>gies</i>)	("to enter")
<i>apelas</i>	("to turn")
<i>akas</i>	("to be", "to become")
<i>welakas</i>	("to be", "to exist")
<i>l</i>	("to go")

when occurring with the normal (*casu quo*: pseudo-secondary) categories, e.g.:

infinitive aspect category:	<i>menasin</i> , <i>lan</i> ;
near future tense category:	<i>menasikin</i> , <i>lekein</i> ;
contingent aspect category:	<i>menasinoko</i> , <i>lanoko</i> .

When occurring with pseudo-tertiary categories, however, the root-morpheme of some verbs is replaced by a slightly different form, namely:

<i>wes</i>	by <i>was</i> ,
<i>gis</i>	by <i>gias</i> ,
<i>akas</i>	by <i>as</i> ,
<i>welakas</i>	by <i>welas</i> , and
<i>l</i>	by <i>las</i> .

e.g.:

<i>wahy</i>	"I come"
<i>lahy</i>	"I go"
<i>waka</i>	"he comes"
<i>giaka</i>	"he enters"
<i>wakeikha</i>	"they come".

§ 96. The pseudo-tertiary categories

Having stated that the pseudo-tertiary categories have the same formal equipment as the tertiary categories, one need only know which categories are pseudo-tertiary in order to have a full insight into these existential verbs.

The pseudo-tertiary categories are:

A. Near past tense, e.g.: *wahy* "I come", "I came"

Remarks:

1. What was said in § 83 about the temporal properties of the tertiary near past tense is also valid for its pseudo-tertiary counterpart.
2. The 3rd p. actor of the verb *welakasin* is for this category blocked by the word *wetek* (cp. §§ 98, 99).

B. Remote past tense, e.g. *wahyky* "I came (long ago)".

C. Perfect past tense, e.g. *wahytik* "(after) I had come".

D. Habitual aspect categories Here the aspect-morphemes *tek* and *se* are affixed to the forms of the pseudo-tertiary near past tense, e.g. *wahytek* "I use to come".

E. Prohibitive aspect categories have aspect-morpheme *v*, e.g.:

<i>wakvn</i>	"don't come" (sg.),
<i>wakvsep</i>	"don't come" (pl.),
<i>biakvp</i>	"don't fall" (pl.).

In the common prohibitive aspect category the adverb *hvk* follows the form for pseudo-tertiary near past tense with 3rd p. sg. actor, e.g.:
waka hvk "don't come".

§ 97. The other categories of existential verbs

The other categories of existential verbs, as said, are the 'normal' ones, with the restrictions that:

a. 2nd p. sg. adhortative aspect category is blocked by the blockading words of § 98 for the verbs:

akasin,
wesin, and
gisin/giesin;

b. members of the following categories probably do not occur (or at least were not found) with existential verbs:
 progressive aspect categories (§§ 12, 13, 14, 15),
 deputative adhort. aspect category (§ 27),
 idiosyncratic aspect category (§ 36),
 durative aspect category (§ 37), and
 1st resultat. aspect category (§ 38);
 perhaps an exception may be made for *wesin* (cp. §§ 98, 99).

§ 98. Blockading words for existential verbs

Some categories are blockaded for existential verbs, viz.:

A. Near past tense with 3rd p. actor for the verbs

welakasin "to be" etc., and
akasin "to be" (*not* when meaning: "to become") if used
 with adjuncts of place.

For these verbs the expected forms **welaka* and **aka* are blocked
 by the word *wetek*, e.g.:

inanyny bokotopa wetek "the spirits of the deceased brave warriors live on top of the (solid) firmament";
dloktet vma wetek "the doctor is at home", but:
dloktet hano aka "the doctor is (a) good (man)", or: "the doctor recovers from his illness".

B. Second person sg. adhortative aspect category for the verbs:

akasin "to be", "to become",
wesin "to come",
gisin/giesin "to enter".

This category is blockaded by the resp. words:

ame,
eme, and
gime/gieme.

§ 99. Dubious forms

Forms which somehow resemble categoric forms are:

- a. *wetek* (§§ 96, 98), resembling or being a 1st resultative aspect form of *wesin* "to come";
- b. *akatek*, resembling or being a 1st resultative aspect form of *akasin* "to be", "to become"; it means, when referring to persons, "relative",

“friend”, “tribesman”, and, when referring to things and animals, except pigs, “property”.

E.g.: *bysie jy nakatek* “this axe is mine”.

c. forms like:

<i>wako-wahy</i>	“I am coming”,
<i>wako-waken</i>	“you are coming”,
<i>wako-waka</i>	“he (etc.) is coming”
	etc.

and: <i>lake-lahy</i>	“I am going”,
<i>lake-laken</i>	“you are going”,
<i>lake-laka</i>	“he is going”
	etc.

These forms resemble in respect of semantics members of the progressive aspect category.

§ 100. Improductive adhortative aspect categories

Beside, and in competition with, the adhortative aspect categories of §§ 18, 19, 21, and 23 when occurring in 1st object voice with 1st or 2nd p. sg. object, or — for examples —:

beside:

<i>isathesik</i>	“let me cook for you” (§§ 48, 18),
<i>isatnesin</i>	“cook for me” (§§ 48, 19),
<i>isatnetnek</i>	“he (she, they) must cook for me” (§§ 48, 21),
<i>isatnetni</i>	“cook for me (you, pl.)” (§§ 48, 23).

one finds forms of this type:

<i>isatheak</i>	“let me cook for you”,
<i>isatnean</i>	“cook for me”,
<i>isatneanek</i>	“he (she, they) must cook for me”,
<i>isatneani</i>	“cook for me (you, pl.)”.

In these latter forms the actor/aspect-morphemes are affixed not to the stem, as described in § 17, but to a stem made up from the object-voice the final consonant of which is replaced by *a*, followed by the actor/aspect-morphemes of the corresponding sections 18, 19, 21, and 23.

Use.

Although the productive and the improductive categories mentioned are always interchangeable, there may be a slight difference between the two pairs, in that the improductive forms are a trifle more polite:

<i>isatnean</i>	“cook for me, please”.
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§ 101. The second resultative aspect category

A handful of verbs having root-morpheme-final sequence *as* have forms which are, no doubt, categoric since they exhibit formally root-morpheme, the final consonant of which is dropped followed by the aspect-morpheme *ko*, and semantically the result of the action brought about by the root-morpheme.

As a rule this category blockades the 1st resultative aspect category (§ 38).

The second resultative aspect category has members which, more than any other category, resemble what in other languages is called a "passive participle", in meaning and in use.

Use.

This category is used attributively as well as predicatively.

Members of this category are:

- mako* or *i mako* or *ima mako* "wet", "moist" (*masin* "to moisten"; *i* "water"; *ima* "in the water", "by means of water")
- wenako* "promised", e.g. *bysie wenako holan* "to have an axe in prospect" (*wenasin* "to promise"; *bysie* "axe"; *holan* "to hold", "to retain")
- jako* "lighted", "burning", e.g. *mo jako* "the sun shines" (*jasin* "to light", "to kindle"; *mo* "sun")
- jako* "plaited", e.g. *sygan jako* "a plaited wrist-band" (*jasin* "to plait") (still another homophonous verb *jasin* means "to sow"; whether this verb has a second resultative aspect form is unknown)
- belako* "flat", "smooth" e.g. *o belako* "board" (*belasin* "to smooth"; *o* "wood") also: *o belatch* "board" (§ 38)
- isako* "cooked", e.g. *hybyty isako* "cooked sweet potatoes" (*isasin* "to cook"; *hybyty* "sweet potato")
- wetako* "roasted", e.g. *hybyty wetako* "roasted sweet potatoes" (*wetasin* "to roast")
- hinako* "(water) fetched", e.g. *i hinako* "water in a bottle" (*hinasin* "to fetch water")
- idako* "born", e.g. *get idako* "baby" (*idasin* "to give birth").

§ 102. The third resultative aspect forms

A small number of words resemble a verb, and show a formal element recurring in all of them, whereas a semantic characteristic can hardly

be given exactly. Roughly, all of them suggest a certain stable situation or attitude.

Notwithstanding their limited number and the feeble semantic link existing between them, we are inclined to consider them as members of a category, be it an unproductive one. For lack of a better name we termed it the "third resultative aspect category", though the term "category" is not fully warranted.

Members of this group are:

<i>gelik</i> or <i>geilik</i>	"hanging" (<i>geilin</i> or <i>gelin</i> "to suspend")
<i>jeilik</i>	"in store", "stored up" (<i>jeilin</i> "to store")
<i>lokolik</i>	"eternal" (<i>lokon</i> "to stay", "to remain")
<i>holik</i>	"stingy" (<i>holan</i> or <i>helan</i> "to hold" "to retain"; or: <i>hoilin</i> "to gather"?)
<i>sephunik</i>	"joined" (<i>sephunesin</i> "to join", "to weld")
<i>lygylik</i>	"rolled", e.g.: <i>hanom lygylik</i> "cigarette" (<i>lygylin</i> "to roll"; <i>hanom</i> "tobacco")
<i>jugulik</i>	"clenched", e.g. <i>egi jugulik</i> "fist" (<i>jugulin</i> "to clench"; <i>egi</i> "hand", "fingers").

Possible members of this group are also:

<i>wedik</i>	"lying" cp. <i>weinasin</i> , <i>wenasin</i> "to lie"
<i>hudik</i>	"bordering on" cp. <i>hunin</i> "to touch (something)" ⁵⁴

This group is not clear formally: in most cases a formal element *ik* follows the real or supposed root-morpheme.

Having once mentioned the existence of these forms we consider them furthermore as of more lexical than morphological interest.

§ 103. The 2nd bound active past participle

A fairly large number of verbs having root-morpheme-finally the sequence *as* may form, either in competition or in suppletion with the normal category of the 1st bound active past participle (§ 40), active past participles of the shape:

⁵⁴ Some dialects have: *hunik* "bordering on".

This word *hudik* and the word *sephunik* (and *holik*?) mentioned above apparently belong to a rather elusive cluster of verbs, all sharing some semantic moment of "bringing together"; among others:

<i>hunin</i>	"to touch"
<i>hulin</i> or <i>hoilin</i>	"to gather" (cp. <i>holik</i> ?)
<i>sephunesin</i>	"to unite"; <i>sephunoko</i> "contiguous"
<i>helelin</i>	"to join", "to combine" cp:
<i>helenhoko</i> ,	
<i>helelhoko</i>	"all, together".

isasoko and *isakasoko* "having cooked"
 beside the form of § 40: *isathoko*,
hymasoko and *hymakasoko* "having hidden"
 beside *hymathoko* (§ 40),
wenasoko and *wenakasoko* "having promised"; it is unknown if there
 is a 'normal' form.
 cp. *isasin* "to cook"
hymasin "to hide"
wenasin "to promise".

These forms are characterized
 formally by the element *soko* or *kasoko* (as a free variant) following
 the root-morpheme, the final consonant of which is dropped, and
 semantically by the information that the actor has achieved the
 action of the root-morpheme and now proceeds to another action;
 syntactically by the same restriction as is valid for the 1st active
 past participle (§ 40).

Remark.

No rule can be given when and why a 2nd bound active past participle and/or a 2nd resultative aspect form of a given verb are used.

§ 104. The category of the pseudo-energetic voice

A. A number of verbs have secondary categories and a form similar to that of energetic voice verbs.

However, the plain verbs from which they were derived were never found. Therefore they are called here "pseudo-energetic" verbs.

These verbs are:

<i>lythan</i>	"to pull"
<i>lukhan</i>	"to escape"
<i>huthan</i>	"to understand"
<i>mothan</i>	"not to understand"
<i>sinethan</i>	"to smell"
<i>sakhan</i> or <i>isakhan</i>	"to sit down somewhere because of the temperature, either in the sun or in the shadow"
<i>mikhan</i>	"to taste"
<i>hakhan</i>	"to catch"
<i>hythan</i>	"to look"
<i>walthan</i>	"to measure", "to try", "to compare".

Remark.

Some trace of the original verb may be present in: *hvték* "knowing", which is formally the resultative aspect form of a supposed verb **hvsin*, the energetic voice of which is **hothan*; *hako* "holding". This word may be considered as the second resultative aspect form (§ 101) of a supposed verb **hasin*. Of this verb the energetic voice would be **hathan* or *hakhan* (§ 44). Note that in this assumption one has to explain why *hako* has the meaning of "holding", "having in possession" whereas one would expect meaning to be "being held in possession".

B. With the pseudo-energetic voice are also ranked here the few verbs which may have one or two objects, one of which is the actor himself ("reflexive verbs"), e.g. "to clean oneself of dirt". They have a shape like:

hesi hothakhyky "I clean myself of mud" (*hosin* "to wipe";
hesi "mud", "dirt")
nomosi balhakhyky (my-body-hairs I-cut-myself) "I shave".

These verbs are characterized
f o r m a l l y by the reflexive voice morpheme *hak* followed by secondary
tense- or aspect-morphemes;
s e m a n t i c a l l y by the information that the actor performs the
action on himself.

Use.

This category is most often used with the word *egakatek* "self", *negakatek* "I myself", *hegakatek* "you yourself" etc.

Remark.

The productivity of this category is dubious. It was given here as "improductive" on semantic ground, because in Dani very few verbs have a lexical meaning compatible with the semantic moment of this category. Therefore a term like "restricted productivity" might be used as well.

§ 105. The category of the pseudo-causative voice

A. A number of forms show traits which resemble those of the causative voice (§ 45). They are therefore called here "pseudo-causative" forms, e.g.:

<i>gokhoko</i>	"big", "loud" in: <i>etadlio gokhoko than</i> "have the radio play loud" (<i>etadlio</i> "radio", "tape recorder"; <i>gok</i> "big", "large", "loud"; with <i>than</i> is meant: <i>ane than</i> , energetic voice of <i>ane in</i> "to produce sound"; <i>ane</i> "sound");
<i>abikhoko</i>	"many", "much" in e.g.: <i>abikhoko woknom</i> "give me a lot of them" (<i>abik</i> "many", "much");
<i>gut weakhoko</i>	
<i>hakasin</i>	"make it very white" (<i>gut</i> "white"; <i>gut weak</i> "very white"; <i>hakasin</i> "to do", "to make").

These forms show:

formally an adjective or an adverb to which is affixed the formal element *hoko*;

semantically the information that the quality expressed by the adjectival or adverbial root-morpheme is intended.

B. To the forms, given above, may be added a large number of words of comparable shape, the root-morpheme of which, however, is unknown.

Formally they have the same make-up, semantically they express some attitude or position.

It is a remarkable phenomenon that many of these words have beside them words with the same meaning and the same (supposed) root-morpheme, but with affixed to the root-morpheme the formal element *sek*.

These forms are:

<i>halokhoko</i>	"sitting in a certain attitude", i.e.: with the buttocks on the ground or floor and the feet touching the buttocks;
<i>helokhoko</i>	"prostrate"
<i>ae gemikhoko</i>	"sitting in a certain attitude", i.e.: with the legs crossed under one's body" (<i>ae</i> "leg(s) as instruments of locomotion")
<i>henokhoko</i>	"askew"
<i>loukhoko</i>	"perpendicular"
<i>louksek</i>	idem (looking for the root-morpheme of these words one finds only a word <i>louk</i> in: <i>seke louk</i> "walking stick" cp. <i>seke</i> "stick")

<i>hedakhoko</i>	"convex"
<i>hedaksek</i>	idem
<i>heakhoko</i>	"askew", "leaning"
<i>heaksek</i>	idem
<i>legakhoko</i>	"askew", "unstable"
<i>gilukhoko</i>	"ebbing", occurring in: <i>i gilukhoko laka</i> "the river (<i>i</i>) falls"
<i>lakakhoko</i>	"going round", "past (time)", "incoherent", "confused"
<i>lakaksek</i>	"incoherent", "confused" <i>ane lakaksek</i> "nonsense"
<i>gulukhoko</i>	"spraining", e.g.: <i>nesok gulukhoko laka</i> "I sprained my ankle"
<i>helenhoko</i>	"together", "as a crowd"
<i>helelhoko</i>	idem
<i>neinhoko</i>	"tight", "firm"
<i>neinsek</i>	idem
<i>hytokhoko</i> or <i>hetokhoko</i>	"empty"
<i>hytoksek, hetoksek</i>	idem
<i>hedokhoko</i>	"full"
<i>hedoksek</i>	idem
<i>hatokhoko</i>	"transverse"
<i>hatoksek</i>	idem
<i>mukhoko</i>	"away", "vanishing" in the expression: <i>mukhoko lan!</i> "hop it", "be off"
<i>ligikhoko</i>	"bent" in: <i>egi ligikhoko</i> "fist", "the hand clenched" <i>egaga ligikhoko</i> "the fingers bent", "four" <i>isa ligikhoko</i> "the thumb bent", "five"
<i>wigakhoko</i>	"flattened out" <i>egi wigakhoko</i> "the hand flattened out" .

§ 106. Improductive 1st object voice categories

A. In competition with:

<i>wokonesin</i>	"to give me"
<i>wokonethe</i>	"he (she) gave me"
<i>wokonesikiluk</i>	"sg. actor intending to give me" etc.,
	or with :
<i>wokohesin</i>	"to give you (sg.)"
<i>wokohethe</i>	"he (she) gave me"
<i>wokohesikiluk</i>	"sg. actor intending to give you" etc.,

one finds also:

woknesin "to give me"
woknethe "he (she) gave me"
woknesikiluk "sg. actor intending to give me" etc.,

or:

wokhesin "to give you"
wokhethe "he gave you"
wokhesikiluk "sg. actor intending to give you" etc.

Verbs of this type have beside the 'normal' 1st object voice forms (§ 48) an improductive category, characterized formally by 1st object voice morpheme following the root-morpheme, the last vowel and consonant of which are dropped; semantically by the same informational content as the 1st object voice category.

The members of this category are:

wokosin "to give", "to haul"
jokosin "to say"
mukusin "to expel", "to dislodge (the enemy)".

B. The same observations and characteristics are valid for the verbs: *makasin* and

melakasin "to share food with someone",

but with these verbs no (normal) 1st object voice forms are in competition; e.g.:

hybyty maknethe (not: **makanethe*) "he shared his sweet potato with me".

C. We are inclined to rank with the verbs mentioned the verbs *eilegen lakhan* and *eilegen hythan* "to look", which being themselves energetic and pseudo-energetic voice forms resp. may occur in 1st object voice category.⁵⁵

Thus one finds:

eilegen laknesin "to look at me"
neilegen lakhethy "I looked at you".

Remark.

Because the object voice categories are of the same order, and so mutually exclusive, one must conclude that the verbs *eilegen lakhan*

⁵⁵ For *lakhan* cp. *lan* "to go"; *lakhan* "to have go"; *eilegen lakhan* "to direct the eyes".

and *eilegen hythan* are no longer treated as object-verbs.

D. The same verb in the causative voice *lakhan* is found with 1st object voice in the combination: "to allow a person to go", "to dismiss". Thus:

<i>laknesin</i>	"to let me go"
<i>lakhethe</i>	"he let you go"
	etc.

Remark.

Compare the Remark sub C, above, and the unproductive 3rd object voice category (next section).

§ 107. The unproductive 3rd object voice category

The verb *lakhan* "to have a person go", "to send", though of itself a causative voice form, may occur with 3rd object voice morphemes.

Thus:

<i>lakhanin</i>	"to send me"
<i>lakhakan</i>	"to send you (sg.)"
<i>lakhinanin</i>	"to send us"
	etc.

§ 108. The unproductive 4th object voice category

In the foregoing sections several times the verb *wasin* was mentioned, meaning "to hit", "to beat", "to aim at", "to attack", "to slay", "to kill".

Likewise one finds:

<i>nasin</i>	"to hit (etc.) me", or
<i>nathe</i>	"he hit me", or
<i>nasinoko</i>	"running the risk of hitting me",
	but also:
<i>hasin</i>	"to hit (etc.) you (sg.)",
<i>hathe</i>	"he hit you",
	and:
<i>ninathe</i>	"he hit us",
<i>hinathe</i>	"he hit you (pl.)".

In other words, one meets different verbs for the different objects, namely:

<i>nasin</i>	"to hit me", "to . . . etc."
<i>hasin</i>	"to hit you"

<i>wasin</i>	“to hit him (her, it)”
<i>ninasin</i>	“to hit us”
<i>hinasin</i>	“to hit you”
<i>inasin</i>	“to hit them”.

One may consider these forms to be a verb **asin*, to which pronouns are prefixed for the corresponding objects, but then one has to notice the curious fact that the object-pronoun for 3rd p. sg. object is *w*; moreover this *w* occurs even when there is no personal object.

However, when comparing these verbs with verbs in 2nd object voice category, one finds a great resemblance of the prefixes for the objects of “hitting” with the pronominal and number infixes in 2nd object voice (§§ 50, 52); compare e.g.:

<i>nasin</i>	“to hit me”	<i>salnapin</i>	“to cover me”
<i>hasin</i>	“to hit you”	<i>salthapin</i>	“to cover you”
<i>wasin</i>	“to hit him”	<i>salapin</i>	“to cover him”
<i>ninasin</i>	“to hit us”	<i>salnnapin</i>	“to cover us”
<i>hinasin</i>	“to hit you”	<i>salthinapin</i>	“to cover you”
<i>inasin</i>	“to hit them”	<i>salinapin</i>	“to cover them”.

The number-morphemes and the object-morphemes in both series are almost the same, viz.:

number-morpheme	for sg.:	zero,
	for pl.:	<i>in</i> ;
object-morpheme	for 1st p.:	<i>n</i> ,
	for 2nd p.:	<i>h</i> ,
	for 3rd p.:	zero.

On this assumption, viz. that 3rd p. sg. has numerical and personal zero-prefixes, one must conclude that the verb is *wasin*, the initial consonant of which is dropped whenever a personal object-morpheme other than zero is prefixed.

This conclusion is neither supported nor contradicted in other fields of the language.

§ 109. The composite object voice category

The three verbs:

<i>wenakwasin</i>	“to be angry with someone”,
<i>mukwasin</i>	“to expel someone”, and
<i>wokwasin</i>	“to carry someone away”

have, apart from a partial formal resemblance, a semantic connotation in common, viz. that the object (represented formally by the affix) is utterly passive, completely dependent on the actor of the verb.

One might consider these verbs as constituting a category in their own right, comparable to e.g. 2nd object voice category.

However, when opposing these verbs to the 4th object voice category (§ 108), one sees a partial formal resemblance (*wasin* versus *wenakwasin* etc.), and a common semantic element: both types of verbs share the moment of "utter passivity".

One had therefore best consider the verbs under discussion as composite verbs, viz. a compound of a stem and the verb *wasin*.

The stem in two out of the three verbs is made up of the root-morpheme, the final vowel and consonant of which are dropped (cp. also § 106), viz. *muk* and *wok*. The verb underlying *wenak-wasin* is unknown.

On this assumption the prefixes have become infixes, e.g.:

<i>wenaknasin</i>	"to be angry with me"
<i>wenakhasin</i>	"to be angry with you (sg.)"
<i>wenakwasin</i>	"to be angry with him (her)"
<i>wenakninasin</i>	"to be angry with us"
<i>wenakhinasin</i>	"to be angry with you (pl.)"
<i>wenakinasin</i>	"to be angry with them".

These verbs act further as normal verbs save for the following remarks.

Remarks.

1. The three verbs discussed above and the verb *wasin* are mutually exclusive to the other voice-categories. Only the verb *wasin* may occur in the medial voice, then meaning "to die" (*watlasin*), for all actors, e.g.:

<i>an watlasikiluk</i>	"I am about to die".
<i>watlaken</i>	"you died" (not: <i>*hatlaken</i>)

2. Beside the forms *mukwasin* etc. (composite object voice) one finds with the same meaning *mukesin* (1st object voice); thus:

<i>muknasin</i> and <i>muknesin</i>	"to expel me"
<i>mukhasin</i> and <i>mukhesin</i>	"to expel you" etc.

3. For "to carry someone away" with singular object the forms *woknasin*, *wokhasin*, and *wokwasin* are obligatory; with plural object beside the

composite object verbs: *wokninasin*, *wokhinasin*, and *wokinasin* one may use also the first object voice: *woknyсан*, *wokhyсан*, and *wokysан*.

Combining this observation with that sub "Remark 2", one may say that 1st object voice and composite object voice categories are competitive for the verb *mukusin* and for the verb *wokosin*-with-plural-object, whereas the composite object voice is suppletive for 1st object voice for the verb *wokosin*-with-singular-object.

NON-VERBAL CATEGORIES

§ 110. Preliminary remarks

Whereas the morphological system of the verb is, as seen in the previous chapters, rather elaborate, outside that system the Dani language offers comparatively few phenomena which are interesting from a morphological point of view.

When about to analyze these phenomena one is inevitably forced to use word-class terms. However without a syntactical description it is impossible to define the word-classes of Dani.

As a practical solution in the following sections we will use some traditional word-class terms without further explanation, although we are well aware that the content of these terms for Dani is slightly different from that for other languages.

A future syntactical description will at this point have to complete the present morphological description.

Part A. The personal pronouns

§ 111. The number and person-categories of the personal pronouns

When comparing the sentence:

an vma lahy "I go home" with:
hat vma laken "you (sg.) go home",

the speaker is apparently deictically represented by the word *an*, and the addressee by the word *hat*.

The same statement can be made by mutual opposition of:

at en an dalnaphe "he stabbed at me", and
at en hat dalhaphe "he stabbed at you (sg.)",

or:

at en bysie an woknethe "he gave me an axe", and
at en bysie hat wokhethe "he gave you an axe".

Proceeding in the same way with other persons, we find the series:

<i>an en at dalaphy</i>	"I stabbed at him",
<i>at vma laka</i>	"he goes home",
<i>an en bysie at wokethy</i>	"I gave him an axe";
<i>nit vma lako</i>	"we go home",
<i>at en nit dalninaphe</i>	"he stabbed at us",
<i>at en bysie nit woknysikhe</i>	"he gave us an axe";
<i>hit vma lakep</i>	"you (pl.) go home" ,
<i>at en hit dalhinaphe</i>	"he stabbed at you",
<i>at en bysie hit wokhysikhe</i>	"he gave you an axe";
<i>it vma lakeikha</i>	"they go home",
<i>at en it dalinaphe</i>	"he stabbed at them",
<i>at en bysie it wokysikhe</i>	"he gave them an axe".

Summarizing the outcome of these oppositions, we find:

<i>an</i>	deictically representing 1st p. sg.,
<i>hat</i>	deictically representing 2nd p. sg.,
<i>at</i>	deictically representing 3rd p. sg.,
<i>nit</i>	deictically representing 1st p. pl.,
<i>hit</i>	deictically representing 2nd p. pl.,
<i>it</i>	deictically representing 3rd p. pl.

A further scrutiny of these forms reveals the existence of some categories, be it narrow ones: *hat* opposed to *hit* shows a formal difference (*a* versus *i*) parallel with a semantic difference (sg. versus pl.); this is confirmed by opposition of the 3rd p. forms: *at* versus *it*, and of 1st p. forms: *an* versus *nit*.

Apparently the formal elements *a* and *i* for the semantic moments of sg. and pl. resp. are categoric.

Having the numerical moment as the stable factor, and varying the personal moment, i.e. opposing *hat* vs. *at*, *hit* vs. *it* etc., we find the formal element *h* corresponding to 2nd p., and the formal element *n* corresponding to 1st person; apparently 3rd p. is characterized by zero. Only in 1st p. sg. is the grouping of the two formal elements, the personal one and the numerical one, different from what one is inclined to expect: the expected form **nat* is blockaded by *an*.

Hence we may characterize the personal pronouns:

formally by the person-morphemes

n for 1st p.,

h for 2nd p., and

zero for 3rd person,

preceding (except in 1st p. sg.) the number-morphemes:

a for sg., and

i for pl.,

and the root-morpheme *t*,

whereas the personal pronoun for 1st p. sg. is blockaded by the word *an*;

semantically they indicate the speaker(s), the hearer(s), or the third person. As such they are semantically related to the actor-categories and the different object-voice categories of the verb.

Remark.

The categories involved in the personal pronouns are not fully productive because they can be applied only to three persons and two numbers.

Part B. The substantive

§ 112. The category of the possessive prefixes

In Dani a large number of words occurs, certain formal elements of which indicate the person to whom that word (rather: the person, thing, or animals represented by that word) has a relation of possession, incorporation, place, etc., e.g.:

<i>negi</i>	"my hand(s)"	<i>nabysie</i>	"my axe"
<i>hegi</i>	"your hand(s)"	<i>habysie</i>	"your axe"
<i>egi</i>	"his (her) hand(s)"	<i>bysie</i>	"his axe"
<i>ninegi</i>	"our hand(s)"	<i>ninabysie</i>	"our axe"
<i>hinegi</i>	"your hand(s)"	<i>hinabysie</i>	"your axe"
<i>inegi</i>	"their hand(s)"	<i>inabysie</i>	"their axe".

Whenever the element *n* or *na* is prefixed to a word, that word indicates a relation to the speaker. Likewise the element *h* or *ha* points to the addressee, whereas absence of such an element points to a third person (or to the absence of any relation to a person).

Apparently the number of the person to whom the word is related is expressed by

zero for singular, and

in for plural.

At further inspection the element *a* in *nabysie*, *habysie* etc. proves present only before a root-morpheme-initial consonant. Because this always is the case we can henceforward omit it from the description.

That the link between *n* and the speaker, *h* and the addressee etc. is a categoric one, need not be doubted: whenever the element *n* (*h*, etc.) is prefixed to a root-morpheme, the resultant word indicates a relation to the speaker (the hearer, etc.).

Because all the prefixes "behave" in the same way, we may describe them under one heading, viz. that of the category of the "possessive prefixes".

This category is characterized formally by person-morpheme

n for 1st p.,
h for 2nd p., and
 zero for 3rd p.,
 followed by number-morpheme
 zero for singular, or
in for plural,
 prefixed to the root-morpheme;

semantically by the information that such and such a person (represented by the person and number-morphemes) has a relation to the person or object represented by the root-morpheme.

Use.

This category is used for different relations, viz.:

1. Relation of property for strictly personal belongings, e.g.:

nasu "my net" (*su* "net" or "his (her) net" as the case may be);
naseke "my spear" (*seke* "spear", "his spear");
naholim "my penis-gourd" (*holim* "gourd", "his gourd").

Note: this category is not used with respect to pigs.

2. Relation of incorporation as a part in a whole, or as a member in a unit, e.g.:

nasuk "my ear" (*asuk* "ear", "his (her) ear");
nesok "my foot" (*esok* "foot" etc.);
nugul "my head" (*ugul* "skull", "head" etc.);
nugul "my tribe" (*ugul* "tribe" etc.);
nugul oak "my skull-bone" (*oak* "bone" etc.);
nugul oak "my clan".⁵⁶

⁵⁶ As these examples show, the relations involved are different from what the reader might expect.

3. Relation of personal attitude, emotions etc. e.g.:

<i>na'yt</i>	"I don't like (<i>a'yt</i> "dislike", "his (her) dislike");
<i>najvk</i>	"I fear" (<i>ajvk</i> "fear", etc.);
<i>nogot</i>	"I don't know" (<i>ogot</i> "ignorance" etc.);
<i>nelu</i>	"I know" (<i>elu</i> "comprehension" etc.).

Remarks.

1. As is clear the name "possessive prefixes", covering only a part of the relational field, is an understatement. It was adopted as a "pars pro toto" denomination for lack of a more comprehensive term.

2. Relations of possession, other than strictly personal, are expressed with the personal pronoun followed by postposition *mege* "in relation to", "belonging to", e.g.: *an mege* "my", "mine". Thus there is a difference between:

naseke "my spear" (i.e. "my personal spear")

and:

seke an mege "my spear" (i.e. the spear which I now use, but which I borrowed or stole from my neighbour).

3. Because of its limited scope the category for denoting the possession of pigs is done away with here as a "Remark".

This category is limited as to its object (only pigs) and its owner (only the three persons sg. and pl.), so: restricted in its productivity.

The owner of pigs is expressed by the possessive prefix affixed to the root-morpheme *akho*, thus:

wam nakho "my pig(s)",

wam hakho "your pig(s)", etc.

Apparently related to these forms is the word *wesakho* in: *wam wesakho* "sacred pigs" (cp. *wesa* "cult", "religion", "mystery").

4. The (plural) possessive prefixes *nin* etc. are often articulated voicelessly.

§ 113. The category of the *dek*-forms

Words like:

<i>jamandek</i>	"oldish",
<i>gaindek</i>	"chief-like", "chiefly",
<i>jegetekdek</i>	"boyish",

when compared with:

<i>jaman</i>	"old man", "old woman",
<i>gain</i>	"chief", "noble",
<i>jegetek</i>	"boy",

show:

formally the element *dek* suffixed to the root-morpheme, whereas semantically they denote that the person or thing to which they are applied shares to some extent the quality inherent to the root-morpheme. Moreover the resultant words belong to the word-class of the qualifiers.

§ 114. The categoroid of grammatical number

As a rule grammatical number is expressed only in verb-forms and pronouns.

A restricted number of words, however, all of them denoting a relation belonging to the social organisation (family, group, etc.), show a categoric or near-categoric procedure for expressing the plural number. Hence we brought them together under the name of categoroid, not excluding the possibility that they are categoric.

They have a rather elusive shape:

	singular		plural
<i>he</i>	“woman”		<i>hvmy</i> or <i>hymy</i> ⁵⁷
<i>homakadlek</i>	“girl”		<i>homakadlky</i>
<i>jegetek</i>	“boy”		<i>jygytvy</i>
<i>akatek</i>	“one’s relative”		<i>akatkvy</i>
<i>abetek</i>	“other (person)”		<i>abvtky</i> “others”
<i>ake</i>	“wife”, “first wife”		<i>akvky</i> or <i>akouky</i> “wife and co-wives”
<i>akajak</i>	“brother” (etc.)		<i>akajvky</i>
<i>akloke</i>	“daughter”		<i>aklovmy</i>
<i>akot</i>	“younger sibling”		<i>akvty</i>
<i>eak</i>	“child” (woman speaking)		<i>eakei</i> or <i>eaei</i>
<i>aphut</i>	“child (male speaking)”		<i>aphvty</i>
<i>akailak</i> or <i>akadlak</i>	“sister’s child”		<i>akadlvmy</i>
<i>etouk</i>	“friend of opposite sex”		<i>etvky</i> or <i>etouky</i> .

Formally these words show a tendency to have a *v* where the corresponding sg. form has *e*, to have a *v* where the corresponding sg. form has any other vowel as its last vowel, and to add word-finally the phoneme *γ*;

⁵⁷ For the translation of the different relationship terms the writer does not claim exactness nor completeness. Thus e.g. *akajak* and *etouk* cover a wide field of social relations; and in certain circumstances a boy may even address an adult with: *neak* “my child” (female speaking)!

semantically they indicate the plural of the underlying word.

§ 115. The substantives for inalienable relations

A single word must be said about a certain group of words which set themselves apart from other words by common semantic and formal traits, because categoric forces may be at work in them.

These words express family relationships, parts of the body, bodily experiences and emotions. Broadly it is that group of words which may have the personal "possessor" prefixed to them (§ 112, Use 2, 3).

Many of these words contain a formal element *ak*:

E.g.:	<i>akosa</i>	"mother"
	<i>ake</i>	"wife"
	<i>akot</i>	"younger sibling"
	<i>akloke</i>	"daughter"
	<i>akvn</i>	"husband"
	<i>akap</i>	"shoulder"
	<i>akde</i>	"belly"
	<i>akadlit</i>	"clitoris"
	<i>aklip</i>	"nail"
	<i>akegen</i>	"warm", "feverish"
	<i>akasapu</i>	"stuffy"
	<i>akmv</i>	"sympathy".

Words such as the following do not contain the element *ak*:

<i>oe</i>	"older sibling"
<i>ouphase</i>	"father"
<i>etouk</i>	"friend of opposite sex" etc.
<i>emal</i>	"parent-in-law" (male speaking)
<i>amy</i>	"father-in-law" (female speaking)
<i>oan</i>	"mother-in-law" (female speaking)
<i>aphut</i>	"child" (male speaking)
<i>egi</i>	"hand", "arm", "finger"
<i>esok</i>	"leg", "foot"
<i>ugul</i>	"skull"
<i>abot</i>	"back"
<i>elu</i>	"understanding"
<i>ogot</i>	"ignorance"
<i>a'yt</i>	"dislike".

Some observations and reflections on these words:

1) It is not clear whether this formal element *ak* has any relation to the verb *akasin* "to be", "to become"; this verb in 1st resultative aspect is used indeed for expressing the relation of possession: *nakatek* "my", "mine"; *hakatek* "your", "yours" etc. This *akatek*, however, is as a rule used only for those possessions which are acquired (more or less conforming to the lexical meaning of "to become"), whereas the "possession" of family relationships, parts of the body etc. is given by nature.

2) One might compare the quoted *ak* with a number of words which all of them express a relation of some sort, e.g.:

- a. relation of similarity: suffix *hak* and postposition *hakhe* "like":
ihak "like water (*i*)"
gokhak "rather big"
- b. relation of mutuality and membership: postposition *lak*, e.g.:
akosa lak eak lak "mother and child"
oe lak "brother and sister"
Wasin lak "the people of Wasin"
(Wasin: proper name of a certain chief)
- c. relation of reflexiveness (§ 104 B), e.g.:
hulyakep sopalhakhyky "I wash the dirt from my body"
- d. relation of grouping (cp. § 119: distributive numerals), e.g.:
bagidak "one by one",
betedak "two by two".

3) Beside the words expressing family relationships one often finds homophonous words which, either by themselves or in combination with another, similar, word, express corporal or spiritual organs and processes. Thus e.g.:

<i>nakot</i>	"my younger sibling"
<i>nakot</i>	"my wits"
	<i>nakot laka</i> 1) "my younger sibling departs"
	2) "I am frightened"
<i>akot</i>	"one's younger sibling"
<i>akvn</i>	"one's husband"
<i>akotakvn</i>	"composure", "presence of mind"
	<i>nakotakvn laka</i> "I lose my head", "I am frightened"
<i>ake</i>	"one's wife"
<i>akvn</i>	"one's husband"
<i>akeakvn</i>	"soul", "spirit".

On the other hand words for parts of the body often have homophonous words beside them which express a social organisation; amongst others:

<i>ugul</i>	"head", "skull" "tribe"
<i>ugul oak</i>	"skull", "skull-bone" (<i>oak</i> "bone") "clan"
<i>agul</i>	"penis" "relative"
<i>elabpo</i>	"little finger" "youngest child"
<i>isa</i>	"thumb" "natural leader of a group", e.g.: <i>hegin isa</i> "queen-bee" (<i>hegin</i> "bee") <i>wam isa</i> "sow" (<i>wam</i> "pig")
<i>isa egage</i>	"thumb and fingers" (<i>egage</i> "the four fingers") "precentor and chorus"
<i>magusa</i>	"thumb" "oldest child".

When surveying these words, which all of them may have the "possessor" prefixed to them (e.g.: *nugul oak* "my clan"), one is struck by the observation:

that those words which express a family-relation and their homophones for spiritual organs and processes contain the formal element *ak*; that those which express a part of the body and their homophones for a social relation do not contain the formal element *ak*; and finally:

that those words for parts of the body which do contain the formal element *ak* have no homophones beside them.

The present writer feels unequal to the task of systematizing this material and of deciding whether and, if so, which categorical forces are at work.

If there are categories in action, further research will have to extract them; if not, this group of words may be consigned to the lexicon.

Part C. The postposition

§ 116. Postpositions with prefixes

In Dani one frequently finds forms like:

<i>najogo</i>	"towards me"
<i>hajogo</i>	"towards you"
<i>nopa</i>	"with me"
<i>nakla</i>	"within me"
<i>nobolik</i>	"behind me"
<i>ninobolik</i>	"behind us"
cp.:	
<i>ajogo</i>	"towards a human being"
<i>pa</i>	(after a vowel) or <i>opa</i> (after a consonant) "on", "in", "with" (the latter in a local sense, e.g.: <i>nopa hedv</i> with-me fire: "I have matches with me")
<i>akla</i>	"within"
<i>obolik</i>	"behind", "following".

Whenever certain postpositions have prefixed to them the formal element *n*, they indicate a relation to the speaker; with an *h* prefixed, they show a relation to the hearer. Likewise one finds forms like:

<i>ajogo</i>	"towards him (her)",
<i>ninajogo</i>	"towards us",
<i>hinajogo</i>	"towards you (pl.)",
<i>inajogo</i>	"towards them".

These and suchlike forms occur only with certain postpositions which indicate a place or direction.

The given forms are, no doubt, categoric, but restrictedly productive since only a few, positional, postpositions lend themselves to the formation of these categoric forms.

Because the formal elements occurring in this category are homophonous with the possessive prefixes, there is no need for a analysis. Therefore we may resume this category in the following manner:

formally person-morpheme:

<i>n</i>	for 1st p.,
<i>h</i>	for 2nd p.,
zero	for 3rd p.,

followed by number-morpheme:
 zero for sg., or
in for pl.,
 prefixed to the root-morpheme;
 semantically: a positional or directional information with respect
 to the person represented by the person and number-morpheme.

Part D. Qualifiers

§ 117. The category of the collective nouns

The words:

<i>modladek</i>	"the white", "the white people",
<i>milidek</i>	"the black",
<i>gokdek</i>	"the big ones",

and other words of comparable structure, when compared with:

<i>modla</i>	"light-coloured" (used for colours of high saturation, irrespective of colour-shade),
<i>mili</i>	"dark-coloured" (idem for low saturation), and
<i>gok</i>	"big", "large", "great",

or other corresponding words, show the existence of a category, since when a qualifier is followed by the element *dek*, the resultant form always expresses a group of people or things which as a group share the quality of the underlying qualifier.

Formally the words mentioned show a great resemblance to the *dek*-forms of § 113. Semantically and as a word-class they differ from the latter.

Summarizing we may characterize this category:
 formally by the morpheme *dek* suffixed to the root-morpheme;
 semantically by the information that the persons or things designated by the resultant form belong to a certain group the members of which all share the quality which is represented by the root-morpheme. Note that the resultant forms belong to the word-class of the substantives.

§ 118. The category of the comparative form

In words like:

<i>gokdekanek</i>	"equally big", "as big as"
	cp. <i>gok</i> "big" etc.,

hotodekanek "equally short"
 cp. *hoto* "short",
weakdekanek "equally bad"
 cp. *weak* "bad"

one finds

formally the formal element *anek* following a collective noun (§ 117);

semantically the information that the persons or things to which these words are adjunct share the quality indicated by the root-morpheme in equal degree.

Remark.

The partners in a comparison are coordinative in the sentence; e.g. "hail is as hard as stone":

hetnak dleiheigen hetnak helep hatokdekanek
 (on-the-one-hand hail on-the-other-hand stone equally-hard).

Part E. Numerals

§ 119. The category of the distributive numerals

The three numerals of Dani and their compounds may form distributive numerals of this shape:

<i>bagidak</i>	"one by one", "one at a time"
<i>betedak</i>	"two by two"
<i>hynakendak</i>	"in threes"
	(cp. <i>bagi, bagiat</i> "one"
	<i>bete</i> "two"
	<i>hynaken</i> "three")

bete nen bete nendak "in fours".

The possibilities for making distributive numerals, though theoretically unlimited, are in practice very scanty, even so scanty that one may wonder whether this category may be called productive.

The categorical marks of these distributive numerals are:
 formally the formal element *dak* following the numeral;
 semantically the information that the persons or objects to which the numeral thus modified is applied are considered as groups of so many items, corresponding with the numeral.

Remark.

For a better evaluation of the productivity of this category one ought to know that in practical life the only numerals are: "one", "two", "three", and "many". One many however count more exactly either by giving the name of certain members of the body, e.g.: *egalim* ("wrist"): "six", or by counting in twos and — if necessary — adding the word *sydlak* or *sygydlak* "even-number-plus-one", e.g.:

bete nen bete nen bete nen sydlak

(two plus, two plus, two plus, one-plus), i.e.: "seven".

Part F.**§ 120. Marginal phenomena of word-formation**

The present section will deal with some phenomena which may contain categoric elements; the data were gathered from pun, play-on-words, crypto-speech, and poetry.

The writer must confess his ignorance about the categoric character, productivity, limits, etc. of these phenomena.

1. Crypto-speech. This type of speech is understandable only for those who have a perfect command of the language, and so only a few instances were recorded.

a. The most cryptical procedure is: speaking in vowels only, and omitting all consonants, e.g.: *aooaay*, standing for:
akamoa lahy "I go to the air-strip"⁵⁸

b. Euphemistic crypto-speech: one uses a word which is slightly different from the word one wants to use; e.g.:
haly usi-lahy "I go and fetch some fire-wood", meaning:
nal usi-lahy "I go and defecate".

2. Analogous sound-variations: in the word one has in mind one changes one or more phonemes by analogy with existing words which actually have these sound-variations; e.g.:

inanyny wwtysa-lan "go and behold the gallant warriors".

This *wwtysa-lan* instead of *hytysa-lan* (cp. § 106 C), is formed after the model of the word-variants:

⁵⁸ This type of speech has a special name, viz *hugul hegal* (we must coin a new word like "fib-fob" to translate it), and is used for guessing and quizzing as a social entertainment in the evening.

wuly or *huly* "dirt",
wulipin or *hulipin* "to go out", etc.

and of the word-variants:

hvmý or *hymý* "women",
homasin or *hymasín* "to hide" etc.
 (word-variants with *y* vs. *v* are frequently found, especially when these vowels are followed by a liquid).

This type of sound-variation is often found in poetry.

3. Total or partial reduplication with sound-variation.

a. A number of words have this shape:

naluhalutek or
naluhalusek "ununderstandable", "incomprehensible", "clumsy"
neilheilsek idem
naputahaputal "immortal"
nonhonsek "being at sea".

Apparently the categoroid procedure consists in a total or partial reduplication with replacement of initial *n* by *h*.⁵⁹

b. In Dani one sometimes meets with words like:

haty hato "to and fro", "up and down"
 (cp. *hatokhoko*, *hatoksek* (§ 105))
watik watok "hankering after"
 (cp. *watok* "wanting")
wagik wagok "swinging to and fro", (a river) „winding in endless curves"
hukho hakho "all" (cp. *hukhoat* "all")
dagi dagoksek "slack", "soft"
nygup nagup "daily"
nynhukhe
nanhukhe "daily"
hinok hanok "curious", "bothersome"
 (cp. *hinok* "ignorance")
bygyt bagyt "clumsy"
hugul hegal "crypto-speech" (cp. sub 1 a, above)
sapy sapotek "versatile", "vague".

⁵⁹ For fun the author once used the (non-existing) word *nynhynsek* in the utterance: *jele jy nynhynsek* (rope this very-firm) to express that a rope was firmly lashed (cp. *nynsek* or *neinsek* "firm", "tight"); he was perfectly understood, but with a grin.

All these words show a tendency for reduplication with sound-variation and a preference for the vowel *a* to replace other vowels, and for the vowel *o* to replace *y* or *i* if the word already contains an *a*. Semantically these forms seemingly express reiteration or intensity.

4. Poetic variations.

In poetry very curious variations in word-form may occur. At the present stage of research, however, no rules can be given. For a certain species of grass e.g. one may find several words: *helu*, *hela*, *hulue*, *halae*, *wululue*, *gagalue*.⁶⁰

⁶⁰ These words were recorded by the anthropologist K. Heider.

APPENDIX A

THE VERB *LOKON*

All categories with this verb are blockaded by the form *lokon*, save the following ones which are blockaded by the forms following them:

near future tense (cp. § 3):	<i>lokokin</i> ;	
apophonic near fut. (§ 4):	<i>lokokun</i> ;	
irreal aspect (§ 16):	<i>lokoile</i>	1st p. sg.
	<i>lokoilen</i>	2nd p. sg.
	<i>lokoilep</i>	3rd p. sg.,
		2nd p. pl.,
		3rd p. pl.
	<i>lokoilo</i>	1st p. pl.
1st p. sg. adhortat. (§ 18):	<i>lokoik</i> ;	
2nd p. sg. adhortat. (§ 19):	<i>lokon, lokoin</i> ;	
3rd p. mild adhort. (§ 20):	<i>lokoak</i> ;	
3rd p. strong adhortat. (§ 21):	<i>lokoinek</i> ;	
1st p. pl. adhortat. (§ 22):	<i>lokouok</i> ;	
2nd p. pl. adhortat. (§ 23):	<i>lokoni</i> ;	
2nd. p. sg. fut. adh. (§ 24):	<i>lokoino</i> (sg.),	
	<i>lokoinio</i> (pl.);	
comitat. adhortat. (§ 26):	<i>lokoakai</i> ;	
intentional aspect (§ 28):	<i>lokoikiluk</i> (sg.),	
	<i>lokouokoluk</i> (pl.);	
voluntative aspect (§ 34):	<i>lokousak</i> ;	
durative aspect (§ 37):	<i>lokolyk</i> .	

Lexical meaning: "to stay", "to remain"; in composite verbs (namely as the second component): "to keep . . . ing" (cp. §§ 42, 80); e.g.:

usa hapulhy-lokoak
 "let him keep weeding"
 (cp. *usa* "weeds"; *hapulin* "to weed").

APPENDIX B

SYNOPSIS
of the
PRODUCTIVE VERB-CATEGORIES

Preliminary remark.

It is extremely difficult, if not impossible, to find a verb which may occur in all of the productive categories; as a rule some category is in conflict with the lexical meaning. Nevertheless for a synopsis a uniform root-morpheme is desirable.

Therefore paying more attention in this synopsis to the forms than to their resp. meanings, we will give here a paradigm of the forms which the verb *gulin* "to educate" may assume in the different categories, although one sometimes wonders whether the given form will ever be heard in daily communication. Thus e.g. the medial voice and the contingent aspect categories of this verb are given here as a *formal* example notwithstanding the divergence between the lexical meaning and the voice-categoric and aspect-categoric meaning resp.

Another root-morpheme must necessarily be brought into the picture for the causative voice; therefore we selected the root-morpheme *gok* "big", "large", which in the causative voice — when referring to human beings — has a related meaning, viz.: "to bring (a child) up".

Where two variants are possible, e.g. *gulunoko* beside *gulinoko*, or *gulnysokoin* beside *gulnysokvn*, only one of them is given.

As an example we choose:

root-morpheme	<i>gul</i>
for causative voice:	<i>gok</i>
lexical meaning:	"to educate"
for causative voice:	"big", "large"
voice-categoric meanings:	

energetic voice:	“ educate thoroughly”
causative voice:	“to bring up” ⁶¹
medial voice:	“to get educated”
1st obj. voice:	“to educate in behalf of the infixed object”
2nd obj. voice:	“to educate the infixed object”, “to adopt the infixed object for education”
3rd obj. voice:	“to give (a child) in adoption to the infixed object”.

In the following synopsis the symbols s, p, a, and o stand for: singular, plural, actor, and object resp.

⁶¹ Compare also § 50, Remark 3.

plain

energetic voice

causative voice

medial voice

Infinitive*gulhan**gulhan**gokothan**gulasin***Near future***gulhekein**gulhekein**gokothekain**gulasikin***Apophonic near future***gulhukun**gulhukun**gokothukun**gulasukun***Indefinite future***gulhasekein**gulhasekein**gokothasekein**gulasisekin**gulhasukun**gulhasukun**gokothasukun**gulasisukun***Near past**1s a *gulhy**gulhyky**gokothyky**gulaby*2s a *gulhen**gulheken**gokotheken**gulaken*3s a *gulhe**gulhikhe**gokothikhe**gulaka*1p a *gulho**gulhoko**gokothoko**gulako*2p a *gulhep**gulhekep**gokothekep**gulakep*3p a *gulha**gulheka**gokotheka**gulakeikha***Remote past**1s a *gulhyky**gulhakyky**gokothakyky**gulabyky*2s a *gulheken**gulhakeken**gokothakeken**gulakeken*3s a *gulhikhe**gulhakikhe**gokothakikhe**gulakikhe*1p a *gulhuku**gulhakuku**gokothakuku**gulakuku*2p a *gulhikip**gulhikip**gokothikip**gulakikip*3p a *gulhukha**gulhakukha**gokothakukha**gulakukha*

	plain	energetic voice	causative voice	medial voice
Perfect past				
1s a	<i>gulhytyk</i>	<i>gulhykytyk</i>	<i>gokohykytyk</i>	<i>gulahytyk</i>
2s a	<i>gulhettik</i>	<i>gulhekettik</i>	<i>gokohettetik</i>	<i>gulakettik</i>
3s a	<i>gulhesik</i>	<i>gulhikhesik</i>	<i>gokohikhesik</i>	<i>gulakosik</i>
1p a	<i>gulhosik</i>	<i>gulhokosik</i>	<i>gokohokosik</i>	<i>gulakosik</i>
2p a	<i>gulhesip</i>	<i>gulhekeseip</i>	<i>gokohekeseip</i>	<i>gulakesip</i>
3p a	<i>gulhasik</i>	<i>gulhekasik</i>	<i>gokohekasik</i>	<i>gulakeikhasik</i>

Habitual

1s a	<i>gulhytyk</i>	<i>gulhykytyk</i>	<i>gokohykytyk</i>
2s a	<i>gulhettek</i>	<i>gulhekettek</i>	<i>gokohettetik</i>
3s a	<i>gulhetek</i>	<i>gulhikhetek</i>	<i>gokohikhetek</i>
1p a	<i>gulhotek</i>	<i>gulhokotek</i>	<i>gokohokotek</i>
2p a	<i>gulhesep</i>	<i>gulhekeseip</i>	<i>gokohekeseip</i>
3p a	<i>gulhatek</i>	<i>gulhekatek</i>	<i>gokohekatek</i>

Perfect past habitual

1s a	<i>gulhytesik</i>	<i>gulhykytesik</i>	<i>gokohykytesik</i>
2s a	<i>gulhettesik</i>	<i>gulhekettesik</i>	<i>gokohettettesik</i>
3s a	<i>gulhetesik</i>	<i>gulhikhetesik</i>	<i>gokohikhetesik</i>
1p a	<i>gulhotesik</i>	<i>gulhokotesik</i>	<i>gokohokotesik</i>
2p a	<i>gulhetesip</i>	<i>gulhekatesip</i>	<i>gokohekatesip</i>
3p a	<i>gulhatesik</i>	<i>gulhekatesik</i>	<i>gokohekatesik</i>

plain	energetic voice	causative voice	medial voice
Progressive			
1s a <i>gulhylahty</i>	<i>gulhasykhylahy</i>	<i>gokothasykhylahy</i>	
2s a <i>gulhylahten</i>	<i>gulhasykhylahen</i>	<i>gokothasykhylahen</i>	
3s a <i>guliako</i>			
1p a <i>gulhylahto</i>	<i>gulhasykhylakho</i>	<i>gokothasykhylakho</i>	
2p a <i>gulhylahtep</i>	<i>gulhasykhylakhep</i>	<i>gokothasykhylakhep</i>	
3p a <i>guliokoet</i>			
Near past progressive			
1s a <i>gulhylahtyky</i>	<i>gulhasykhylahtyky</i>	<i>gokothasykhylahtyky</i>	
2s a <i>gulhylahteken</i>	<i>gulhasykhylahteken</i>	<i>gokothasykhylahteken</i>	
3s a <i>gulhylahtke</i>			
1p a <i>gulhylahtku</i>	<i>gulhasykhylahtku</i>	<i>gokothasykhylahtku</i>	
2p a <i>gulhylahtkip</i>	<i>gulhasykhylahtkip</i>	<i>gokothasykhylahtkip</i>	
3p a <i>gulhylahtkha</i>			
Perfect past progressive			
1s a <i>gulhylahtykykysik</i>	<i>gulhasykhylahtykykysik</i>	<i>gokothasykhylahtykykysik</i>	
2s a <i>gulhylahteketikik</i>	<i>gulhasykhylahteketikik</i>	<i>gokothasykhelahteketikik</i>	
3s a <i>gulhylahtkesik</i>			
1p a <i>gulhylahtkusik</i>	<i>gulhasykhylahtkusik</i>	<i>gokothasykhylahtkusik</i>	
2p a <i>gulhylahtkisiip</i>	<i>gulhasykhylahtkisiip</i>	<i>gokothasykhylahtkisiip</i>	
3p a <i>gulhylahtkhasik</i>			

plain

energetic voice

causative voice

medial voice

Irreal

- 1s a *gulle*
 2s a *gullen*
 3s a *gullep*
 1p a *gullo*
 2p a *gullep*
 3p a *gullep*

Adhortative

- 1s a *gulik*
 2s a *gulim*
 gulino
 3s a *gulinek*
 guloak
 gulinok
 1p a *guluok*
 2p a *gulini*
 gulinio
 3p a

same as 3s a

pluralactor *guloakai*

- gulhak*
gulhan
gulhano
gulhanek
gulhaoak
gulhanok
gulhvok
gokothani
gokothanio

gokothaoakai

plain	energetic voice	causative voice	medial voice
Prohibitive			
2s a <i>gulhɔn</i>			
<i>gulhɔdek</i>	<i>gulhikhe hvk</i>	<i>gokothikhe hvk</i>	
<i>gulhe hvk</i>			
2p a <i>gulhɔp</i>			
<i>gulhɔsep</i>	<i>gulhikhe hvk</i>	<i>gokothikhe hvk</i>	
<i>gulhe hvk</i>			
Intentional			
s a <i>gulikikuk</i>	<i>gulhakakuk</i>	<i>gokothakakuk</i>	<i>gulasikikuk</i>
p a <i>guluokokuk</i>	<i>gulhvokokuk</i>	<i>gokothvokokuk</i>	<i>gulasuokokuk</i>
Objective infinitive			
<i>gulu</i>	<i>gulhau</i>	<i>gokothau</i>	<i>gularu</i>
Voluntative			
<i>gulasak</i>	<i>gulhausak</i>	<i>gokothausak</i>	<i>gulasusak</i>
Contingent			
<i>gulinoko</i>	<i>gulhanoko</i>	<i>gokothanoko</i>	<i>gulasnoko</i>
Idiosyncratic			
<i>gulho</i>	<i>gulhikho</i>	<i>gokothikho</i>	
Durative			
<i>gulyk</i>			

	plain	energetic voice	causative voice	medial voice
Resultative				
	<i>gulek</i>			
Detached act. past partic.				
	<i>gulyluk</i>	<i>gulhalok</i>	<i>gokothalok</i>	
1st bound act. past partic.				
		<i>gulhoko</i>	<i>gulhoko</i>	
plain		1st obj. voice	2nd obj. voice	3rd obj. voice
Infinitive				
	<i>gulin</i>			
1s o		<i>gulnesin</i>	<i>gulnapin</i>	<i>gulhanin</i>
2s o		<i>gulhesin</i>	<i>gulhapin</i>	<i>gulhakan</i>
3s o		<i>gulesin</i>	<i>gulapin</i>	
1p o		<i>gulnyšan</i>	<i>gulnapin</i>	<i>gulhinanin</i>
2p o		<i>gulhyšan</i>	<i>gulhinapin</i>	<i>gulhinakan</i>
3p o		<i>gulyšan</i>	<i>gulnapin</i>	
Near future				
	<i>gulikin</i>			
1s o		<i>gulnesikin</i>	<i>gulnapikin</i>	<i>gulhanikin</i>
2s o		<i>gulhesikin</i>	<i>gulhapikin</i>	<i>gulhakekyn</i>
3s o		<i>gulesikin</i>	<i>gulapikin</i>	
1p o		<i>gulnyšekyn</i>	<i>gulhinapikin</i>	<i>gulhinanikin</i>
2p o		<i>gulhyšekyn</i>	<i>gulhinapikin</i>	<i>gulhinakekyn</i>
3p o		<i>gulyšekyn</i>	<i>gulnapikin</i>	

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Apophonic near future			
	<i>gulukun</i>		
1s o	<i>gulnesukun</i>	<i>gulnapukun</i>	<i>gulhanukun</i>
2s o	<i>gulhesukun</i>	<i>gulhapukun</i>	<i>gulhakukun</i>
3s o	<i>gulesukun</i>	<i>gulapukun</i>	
1p o	<i>gulnyvukun</i>	<i>gulnapukun</i>	<i>gulhinanukun</i>
2p o	<i>gulhysvukun</i>	<i>gulhinapukun</i>	<i>gulhinakukun</i>
3p o	<i>gubysvukun</i>	<i>gulinapukun</i>	
Dim future			
s a	<i>gulisikin</i>		
p a	<i>gulisukun</i>		
1s o, sa		<i>gulnapisikin</i>	<i>gulhanisikin</i>
pa	<i>gulnesisikin</i>	<i>gulnapisukun</i>	<i>gulhanisukun</i>
2s o, sa	<i>gulhesisikin</i>	<i>gulhapisikin</i>	<i>gulhakasekyn</i>
pa	<i>gulhesisukun</i>	<i>gulhapisukun</i>	<i>gulhakasvukun</i>
3s o, sa	<i>gulesisikin</i>	<i>gula pisikin</i>	
pa	<i>gulesisukun</i>	<i>gulapisukun</i>	
1p o, sa	<i>gulnyasəkyn</i>	<i>gulnapisikin</i>	<i>gulhinanisikin</i>
pa	<i>gulnyasvukun</i>	<i>gulnapisukun</i>	<i>gulhinanisukun</i>
2p o, sa	<i>gulhysasəkyn</i>	<i>gulhinapisikin</i>	<i>gulhinakasekyn</i>
pa	<i>gulhysasvukun</i>	<i>gulhinapisukun</i>	<i>gulhinakasvukun</i>
3p o, sa	<i>gubysasəkyn</i>	<i>gulinapisikin</i>	
pa	<i>gubysasvukun</i>	<i>gulinapisukun</i>	

	1st obj. voice	2nd obj. voice	3rd obj. voice
plain			
Near past			
1s a	<i>gulhethy</i>	<i>gulhaphy</i>	<i>gulhakyky</i>
2s o	<i>gulethy</i>	<i>gulethy</i>	
3s o	<i>gulhysyky</i>	<i>gulhinaphy</i>	<i>gulhinakyky</i>
2p o	<i>gulysyky</i>	<i>gulinaphy</i>	
3p o			
2s a	<i>gulnethen</i>	<i>gulnaphen</i>	<i>gulhanhen</i>
1s o	<i>gulethen</i>	<i>gulaphen</i>	
3s o	<i>gulnyseken</i>	<i>gulninaphen</i>	<i>gulhinanhen</i>
1p o	<i>gulyseken</i>	<i>gulinaphen</i>	
3p o			
3s a	<i>gulnethe</i>	<i>gulnaphthe</i>	<i>gulhanthe</i>
1s o	<i>gulheththe</i>	<i>gulhaphthe</i>	<i>gulhakikthe</i>
2s o	<i>guleththe</i>	<i>gulapthe</i>	
3s o	<i>gulnysikthe</i>	<i>gulninaphthe</i>	<i>gulhinanthe</i>
1p o	<i>gulhysikthe</i>	<i>gulhinaphthe</i>	<i>gulhinakikthe</i>
2p o	<i>gulysikthe</i>	<i>gulinaphthe</i>	
3p o			
1p a	<i>gulhetho</i>	<i>gulhapho</i>	<i>gulhakoko</i>
2s o	<i>guletho</i>	<i>guletho</i>	
3s o	<i>gulhysoko</i>	<i>gulhinapho</i>	<i>gulhinakoko</i>
2p o	<i>gulysoko</i>	<i>gulinapho</i>	
3p o			

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Near past			
2p a <i>gulhep</i>			
1s o	<i>gulnethep</i>	<i>gulnaphep</i>	<i>gulhanhep</i>
3s o	<i>gulethep</i>	<i>gulaphep</i>	
1p o	<i>gulnysekep</i>	<i>gulninaphep</i>	<i>gulhinanhep</i>
3p o	<i>gulysekep</i>	<i>gulinaphep</i>	
3p a <i>gulha</i>			
1s o	<i>gulnetha</i>	<i>gulnapha</i>	<i>gulhanha</i>
2s o	<i>gulhetha</i>	<i>gulhapha</i>	<i>gulhakaha</i>
3s o	<i>guletha</i>	<i>gulapha</i>	
1p o	<i>gulnyseka</i>	<i>gulninapha</i>	<i>gulhinanha</i>
2p o	<i>gulhyseka</i>	<i>gulhinapha</i>	<i>gulhinakeka</i>
3p o	<i>gulyseka</i>	<i>gulinapha</i>	
Remote past			
1s a <i>gullyky</i>			
2s o	<i>gulhethyky</i>	<i>gulhaphyky</i>	<i>gulhakasyky</i>
3s o	<i>gulethyky</i>	<i>gulaphyky</i>	
2p o	<i>gulhysasyky</i>	<i>gulhinaphyky</i>	<i>gulhinakasyky</i>
3p o	<i>gulyasyky</i>	<i>gulinaphyky</i>	
2s a <i>gulheken</i>			
1s o	<i>gulnetheken</i>	<i>gulnapheken</i>	<i>gulhanheken</i>
3s o	<i>guletheken</i>	<i>gulapheken</i>	
1p o	<i>gulnyaseken</i>	<i>gulninapheken</i>	<i>gulhinanheken</i>
3p o	<i>gulyaseken</i>	<i>gulinapheken</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
	Remote past			
3s a	<i>gulhikhe</i>			
1s o		<i>gulnethikhe</i>	<i>gulnaphikhe</i>	<i>gulhanhikhe</i>
2s o		<i>gulthethikhe</i>	<i>gulthaphikhe</i>	<i>gulthakasikhe</i>
3s o		<i>gulethikhe</i>	<i>gulaphikhe</i>	
1p o		<i>gulnysasikhe</i>	<i>gulninafhikhe</i>	<i>gulninanhikhe</i>
2p o		<i>gulhysasikhe</i>	<i>gulhinaphikhe</i>	<i>gulhinakasikhe</i>
3p o		<i>gulysasikhe</i>	<i>gulinaphikhe</i>	
1p a	<i>gulhuku</i>			
2s o		<i>gulthethuku</i>	<i>gulthaphuku</i>	<i>gulhakasuku</i>
3s o		<i>gulethuku</i>	<i>gulaphuku</i>	
2p o		<i>gulhysasuku</i>	<i>gulhinaphuku</i>	<i>gulhinakasuku</i>
3p o		<i>gulysasuku</i>	<i>gulinaphuku</i>	
2p a	<i>gulhikip</i>			
1s o		<i>gulnethikip</i>	<i>gulnaphikip</i>	<i>gulhanhikip</i>
3s o		<i>gulethikip</i>	<i>gulaphikip</i>	
1p o		<i>gulnysasikip</i>	<i>gulninafhikip</i>	<i>gulninanhikip</i>
3p o		<i>gulysasikip</i>	<i>gulinaphikip</i>	
3p a	<i>gulhukha</i>			
1s o		<i>gulnethukha</i>	<i>gulnaphukha</i>	<i>gulhanhukha</i>
2s o		<i>gulthethukha</i>	<i>gulthaphukha</i>	<i>gulthakasukha</i>
3s o		<i>gulethukha</i>	<i>gulaphukha</i>	
1p o		<i>gulnysasukha</i>	<i>gulninafhukha</i>	<i>gulninanhukha</i>
2p o		<i>gulhysasukha</i>	<i>gulhinaphukha</i>	<i>gulhinakasukha</i>
3p o		<i>gulysasukha</i>	<i>gulinaphukha</i>	

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Perfect past			
1s a <i>gulhytik</i>			
2s o	<i>gulhethytik</i>	<i>gulhaphytik</i>	<i>gulhakkytytik</i>
3s o	<i>gulethytik</i>	<i>gulaphytik</i>	
2p o	<i>gulhyykytytik</i>	<i>gulhinaphytik</i>	<i>gulhinakkytytik</i>
3p o	<i>gulyykytytik</i>	<i>gulinaphytik</i>	
2s a <i>gulhettik</i>			
1s o	<i>gulneihettik</i>	<i>gulnaphettik</i>	<i>gulhanhettik</i>
3s o	<i>gulethettik</i>	<i>gulaphettik</i>	
1p o	<i>gulnysekettik</i>	<i>gulninaphettik</i>	<i>gulhinanhattik</i>
3p o	<i>gulysekettik</i>	<i>gulinaphettik</i>	
3s a <i>gulhesik</i>			
1s o	<i>gulnethesik</i>	<i>gulnaphesik</i>	<i>gulhanhesik</i>
2s o	<i>gulhethesik</i>	<i>gulhaphesik</i>	<i>gulhakikhesik</i>
3s o	<i>gulethesik</i>	<i>gulaphesik</i>	
1p o	<i>gulnysikhesik</i>	<i>gulninaphesik</i>	<i>gulhinanhesik</i>
2p o	<i>gulhysikhesik</i>	<i>gulhinaphesik</i>	<i>gulhinakikhesik</i>
3p o	<i>gulysikhesik</i>	<i>gulinaphesik</i>	
1p a <i>gulhosik</i>			
2s o	<i>gulheihosik</i>	<i>gulhaphosik</i>	<i>gulhakokosik</i>
3s o	<i>gulethosik</i>	<i>gulaphosik</i>	
2p o	<i>gulhyosokosik</i>	<i>gulhinaphosik</i>	<i>gulhinakokosik</i>
3p o	<i>gulyosokosik</i>	<i>gulinaphosik</i>	

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Perfect past			
2p a <i>gulhesip</i>			
1s o	<i>gulnethesip</i>	<i>gulinaphesip</i>	<i>gulhanthesip</i>
3s o	<i>gulethesip</i>	<i>gulaphesip</i>	
1p o	<i>gulnysekeship</i>	<i>gulinapheship</i>	<i>gulhinanhesip</i>
3p o	<i>gulnykeseship</i>	<i>gulnapheship</i>	
3p a <i>gulhasik</i>			
1s o	<i>gulnethasik</i>	<i>gulinaphasik</i>	<i>gulhanhasik</i>
2s o	<i>gulhethasik</i>	<i>gulthaphasik</i>	<i>gulhakukhasik</i>
3s o	<i>gulethasik</i>	<i>gulaphasik</i>	
1p o	<i>gulnyasukhasik</i>	<i>gulinaphasik</i>	<i>gulhinanhasik</i>
2p o	<i>gulhysukhasik</i>	<i>gulhinaphasik</i>	<i>gulhinakukhasik</i>
3p o	<i>gulysukhasik</i>	<i>gulnaphasik</i>	
Habitual			
1s a <i>gulhytek</i>			
2s o	<i>gulhethytek</i>	<i>gulhaphytek</i>	<i>gulhakukytek</i>
3s o	<i>gulethytek</i>	<i>gulaphytek</i>	
2p o	<i>gulhysykytek</i>	<i>gulinaphytek</i>	<i>gulhinakykytek</i>
3p o	<i>gulysykytek</i>	<i>gulnaphytek</i>	
2s a <i>gulhettek</i>			
1s o	<i>gulnethettek</i>	<i>gulinaphettek</i>	<i>gulhanhettek</i>
3s o	<i>gulethettek</i>	<i>gulaphettek</i>	
1p o	<i>gulnysekettek</i>	<i>gulinaphettek</i>	<i>gulhinanhettek</i>
3p o	<i>gulysekettek</i>	<i>gulnaphettek</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Habitual				
3s a	<i>gulhetek</i>	<i>gulnethetek</i>	<i>gulnaphetek</i>	<i>gulhanhetek</i>
1s o		<i>gulthetek</i>	<i>gulhaphetek</i>	<i>gulhakikhetek</i>
2s o		<i>gulethetek</i>	<i>gulaphetek</i>	
3s o		<i>gulnysikkhetek</i>	<i>gulnaphetek</i>	<i>gulhinanhetek</i>
1p o		<i>gulhysikkhetek</i>	<i>gulhinaphetek</i>	<i>gulhinakikhetek</i>
2p o		<i>gulysikkhetek</i>	<i>gulnaphetek</i>	
3p o				
Perfect past habitual				
1p a	<i>gulhotek</i>	<i>gulhethotek</i>	<i>gulhaphotek</i>	<i>gulhakokotek</i>
2s o		<i>gulethotek</i>	<i>gulaphotek</i>	
3s o		<i>gulhysokotek</i>	<i>gulhinaphotek</i>	<i>gulhinakokotek</i>
2p o		<i>gulysokotek</i>	<i>gulnaphotek</i>	
3p o				
2p a	<i>gulheseþ</i>	<i>gulnetheseþ</i>	<i>gulnapheseþ</i>	<i>gulhanheseþ</i>
1s o		<i>guletheseþ</i>	<i>gulapheseþ</i>	
3s o		<i>gulnysekeseþ</i>	<i>gulnapheseþ</i>	<i>gulhinanhesep</i>
1p o		<i>gulysekeseþ</i>	<i>gulnapheseþ</i>	
3p o				
3p a	<i>gulhatek</i>	<i>gulnethatek</i>	<i>gulnaphatek</i>	<i>gulhanhatek</i>
1s o		<i>gulthatek</i>	<i>gulhaphatek</i>	<i>gulhakukhatek</i>
2s o		<i>gulethatek</i>	<i>gulaphatek</i>	
3s o		<i>gulnysukhatek</i>	<i>gulnaphatek</i>	<i>gulhinanhatok</i>
1p o		<i>gulhysukhatek</i>	<i>gulhinaphatek</i>	<i>gulhinakuhatek</i>
2p o		<i>gulysukhatek</i>	<i>gulnaphatek</i>	
3p o				

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
	Perfect past habitual			
1s a	<i>gulhytesik</i>	<i>gulhethytesik</i>	<i>gulhaphytesik</i>	<i>gulhakytesik</i>
2s o		<i>gukethytesik</i>	<i>gulaphytesik</i>	
2p o		<i>gulhysykytesik</i>	<i>gulhinaphytesik</i>	<i>gulhinakkytesik</i>
3s o		<i>gubysykytesik</i>	<i>gulinaphytesik</i>	
3p o				
2s a	<i>gulhettesik</i>	<i>gulmethettesik</i>	<i>gulnaphettesik</i>	<i>gulhanhettesik</i>
1s o		<i>gulethettesik</i>	<i>gulaphettesik</i>	
3s o		<i>gulnysetettesik</i>	<i>gulnaphettesik</i>	<i>gulhinanhettesik</i>
1p o		<i>gubyssetettesik</i>	<i>gulinaphettesik</i>	
3p o				
3s a	<i>gulhetesik</i>	<i>gulmethetesik</i>	<i>gulnaphetesik</i>	<i>gulhanhetesik</i>
1s o		<i>gulhethetesik</i>	<i>gulhaphetesik</i>	<i>gulhakikhetesik</i>
2s o		<i>gulethetesik</i>	<i>gulaphetesik</i>	
3s o		<i>gulhysikhetesik</i>	<i>gulnaphetesik</i>	<i>gulhinanhetesik</i>
1p o		<i>gulhysikhetesik</i>	<i>gulhinaphetesik</i>	<i>gulhinakikhetesik</i>
2p o		<i>gubysikhetesik</i>	<i>gulinaphetesik</i>	
3p o				
1p a	<i>gulhotesik</i>	<i>gulhethotesik</i>	<i>gulhaphotesik</i>	<i>gulhakototesik</i>
2s o		<i>gulethotesik</i>	<i>gulaphotesik</i>	
3s o		<i>gulhysokotesik</i>	<i>gulhinaphotesik</i>	<i>gulhinakokotesik</i>
2p o		<i>gubysokotesik</i>	<i>gulinaphotesik</i>	
3p o				

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
	Perfect past habitual			
	2p a <i>gulhetesip</i>			
	1s o	<i>gulnethetesip</i>	<i>gulnaphetesip</i>	<i>gulhamhetesip</i>
	3s o	<i>gulethetesip</i>	<i>gulaphetesip</i>	
	1p o	<i>gulnyseketesip</i>	<i>gulnaphetesip</i>	<i>gulhinanhetesip</i>
	3p o	<i>gulyseketesip</i>	<i>gulnaphetesip</i>	
	3p a <i>gulhatesik</i>			
	1s o	<i>gulnethatesik</i>	<i>gulnaphatesik</i>	<i>gulhanhatesik</i>
	2s o	<i>gulhethatesik</i>	<i>gulhaphatesik</i>	<i>gulhakukhatesik</i>
	3s o	<i>gulethatesik</i>	<i>gulaphatesik</i>	
	1p o	<i>gulnysukhatesik</i>	<i>gulnaphatesik</i>	<i>gulkinanhatesik</i>
	2p o	<i>gulhysukhatesik</i>	<i>gulhaphatesik</i>	<i>gulhakukhatesik</i>
	3p o	<i>gulysukhatesik</i>	<i>gulnaphatesik</i>	
	Progressive			
	1s a <i>gulhylahy</i>			
	2s o	<i>gulhethylahy</i>	<i>gulhaphylahy</i>	<i>gulhakasykhylahy</i>
	3s o	<i>gulethylahy</i>	<i>gulaphonylahy</i>	
	2p o	<i>gulhysasykhylahy</i>	<i>gulhinaphylahy</i>	<i>gulhinakasykhylahy</i>
	3p o	<i>gulysasykhylahy</i>	<i>gulnaphylahy</i>	
	2s a <i>gulhylaken</i>			
	1s o	<i>gulnethylaken</i>	<i>gulnaphylaken</i>	<i>gulhanhylaken</i>
	3s o	<i>gulethylaken</i>	<i>gulaphylaken</i>	
	1p o	<i>gulnysasykhylaken</i>	<i>gulhinaphylaken</i>	<i>gulhinanhylaken</i>
	3p o	<i>gulysasykhylaken</i>	<i>gulnaphylaken</i>	

	1st obj. voice	2nd obj. voice	3rd obj. voice
plain			
Progressive			
3s a <i>guliako</i>			
1p a <i>gulhylako</i>	<i>gulhethylako</i>	<i>gulhaphylako</i>	<i>gulhahasykhylyako</i>
2s o	<i>gulethylako</i>	<i>gulethylako</i>	
3s o	<i>gulhysasykhylyako</i>	<i>gulhinaphylako</i>	<i>gulhinakasykhylyako</i>
2p o	<i>gulysasykhylyako</i>	<i>gulinaphylako</i>	
3p o			
2p a <i>gulhylakep</i>	<i>gulnethylakep</i>	<i>gulnaphylakep</i>	<i>gulhanhylakep</i>
1s o	<i>gulethylakep</i>	<i>gulethylakep</i>	
3s o	<i>gulhysasykhylyakep</i>	<i>gulhinaphylakep</i>	<i>gulhinanhylyakep</i>
1p o	<i>gulysasykhylyakep</i>	<i>gulinaphylakep</i>	
3p o			
3p a <i>guliokozi</i>			
Near past progressive			
1s a <i>gulhylatyky</i>	<i>gulhethylatyky</i>	<i>gulhaphylatyky</i>	<i>gulhakasykhylyatyky</i>
2s o	<i>gulethylatyky</i>	<i>gulethylatyky</i>	
3s o	<i>gulhysasykhylyatyky</i>	<i>gulhinaphylatyky</i>	<i>gulhinakasykhylyatyky</i>
2p o	<i>gulysasykhylyatyky</i>	<i>gulinaphylatyky</i>	
3p o			
2s a <i>gulhylakeken</i>	<i>gulnethylakeken</i>	<i>gulnaphylakeken</i>	<i>gulhanhylakeken</i>
1s o	<i>gulethylakeken</i>	<i>gulethylakeken</i>	
3s o	<i>gulnysasykhylyakeken</i>	<i>gulninaphylakeken</i>	<i>gulhinanhylyakeken</i>
1p o	<i>gulysasykhylyakeken</i>	<i>gulinaphylakeken</i>	
3p o			
3s a <i>gulhylaikhe</i>			

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Near past progressive			
1p a <i>gulhylaiku</i>	<i>gulhethylaiku</i>	<i>gulhaphylaiku</i>	<i>gulhakasykhylaiku</i>
2s o	<i>gulethylaiku</i>	<i>gula phylaiku</i>	
3s o	<i>gulhysasykhylaiku</i>	<i>gulhinaphylaiku</i>	<i>gulhinakasykhylaiku</i>
2p o	<i>gulysasykhylaiku</i>	<i>gulina phylaiku</i>	
3p o			
2p a <i>gulhylaikip</i>	<i>gulnethylaikip</i>	<i>gulnaphylaikip</i>	<i>gulhanhylaikip</i>
1s o	<i>gulethylaikip</i>	<i>gula phylaikip</i>	
3s o	<i>gulhysasykhylaikip</i>	<i>gulhinaphylaikip</i>	<i>gulhinan hylaikip</i>
1p o	<i>gulysasykhylaikip</i>	<i>gulina phylaikip</i>	
3p o			
3p a <i>gulhylaikha</i>			
Perfect past progressive			
1s a <i>gulhylaikyysik</i>	<i>gulhethylaikyysik</i>	<i>gulhaphylaikyysik</i>	<i>gulhakasykhylaikyysik</i>
2s o	<i>gulethylaikyysik</i>	<i>gula phylaikyysik</i>	
3s o	<i>gulhysasykhylaikyysik</i>	<i>gulhinaphylaikyysik</i>	<i>gulhinakasykhylaikyysik</i>
2p o	<i>gulysasykhylaikyysik</i>	<i>gulina phylaikyysik</i>	
3p o			
2s a <i>gulhylakekettik</i>	<i>gulnethylakekettik</i>	<i>gulnaphylakekettik</i>	<i>gulhanhylakekettik</i>
1s o	<i>gulethylakekettik</i>	<i>gula phylakekettik</i>	
3s o	<i>gulhysasykhylakekettik</i>	<i>gulhinaphylakekettik</i>	<i>gulhinan hylakekettik</i>
1p o	<i>gulysasykhylakekettik</i>	<i>gulina phylakekettik</i>	
3p o			
3s a <i>gulhylaikhesik</i>			

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Perfect past progressive			
1p a	<i>gulhethylaukusik</i>	<i>gulhaphylaukusik</i>	<i>gulhakasykhyllaukusik</i>
2s o	<i>gulethylaukusik</i>	<i>gula phylaukusik</i>	<i>gulhinakasykhyllaukusik</i>
3s o	<i>gulhysasykhyllaukusik</i>	<i>gulinaphylaukusik</i>	
2p o	<i>gulhysasykhyllaukusik</i>	<i>gulnaphylaukusik</i>	
3p o	<i>gulnethylaukusik</i>	<i>gulethylaukusik</i>	<i>gulhanhylaikisip</i>
2p a	<i>gulhylaikisip</i>	<i>gulnaphylaikisip</i>	<i>gulhinanhyllaikisip</i>
1s o	<i>gulethylaikisip</i>	<i>gulnaphylaikisip</i>	
3s o	<i>gulnysasykhyllaikisip</i>	<i>gulnaphylaikisip</i>	
1p o	<i>gulnysasykhyllaikisip</i>	<i>gulnaphylaikisip</i>	
3p o	<i>gulhysasykhyllaikisip</i>	<i>gulnaphylaikisip</i>	
3p a	<i>gulhylaikhasik</i>		
Irreal aspect			
1s a	<i>gulle</i>	<i>gulhapple</i>	
2s o	<i>gulle</i>	<i>gula pple</i>	
3s o		<i>gulhinapple</i>	
2p o		<i>gulnapple</i>	
3p o			
2s a	<i>gullen</i>	<i>gulnaplen</i>	<i>gulhanlen</i>
1s o	<i>gulleten</i>	<i>gulaplen</i>	
3s o		<i>gulhinaplen</i>	<i>gulhinanlen</i>
1p o		<i>gulnaplen</i>	
3p o			

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Irreal aspect			
3s a <i>gullep</i>			
1s o	<i>gulnetlep</i>	<i>gulnaplep</i>	<i>gulhanlep</i>
2s o	<i>gulhetlep</i>	<i>gulhaplep</i>	
3s o	<i>guletlep</i>	<i>gulaplep</i>	
1p o		<i>gulinaplep</i>	<i>gulhinanlep</i>
2p o		<i>gulhinaplep</i>	
3p o		<i>gulinaplep</i>	
1p a <i>gullo</i>			
2s o	<i>gulhetlo</i>	<i>gulhaplo</i>	
3s o	<i>guletlo</i>	<i>gulaplo</i>	
2p o		<i>gulhinaplo</i>	
3p o		<i>gulinaplo</i>	
2p a <i>gullep</i>			
1s o	<i>gulnetlep</i>	<i>gulnaplep</i>	<i>gulhanlep</i>
3s o	<i>guletlep</i>	<i>gulaplep</i>	<i>gulhinanlep</i>
1p o		<i>gulinaplep</i>	
3p o		<i>gulinaplep</i>	
3p a	same as 3s a		
Adhortative			
1s a <i>gulik</i>			
2s o	<i>gulhesik</i>	<i>gulhapik</i>	<i>gulhakak</i>
	<i>gulheak</i>		
3s o	<i>gulesik</i>	<i>gulapik</i>	
2p o	<i>gulhysak</i>	<i>gulhinapik</i>	<i>gulhinakak</i>
3p o	<i>gubysak</i>	<i>gulinapik</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
	Adhortative			
2s a	<i>gulin</i>			
	<i>gulino</i>			
1s o		<i>gulnesin</i>	<i>gulnapin</i>	<i>gulhanin</i>
		<i>gulnom</i>	<i>gulnapino</i>	<i>gulhanino</i>
		(<i>gulom</i>)		
		<i>gulnean</i>		
		<i>gulneano</i>		
3s o		<i>gulesin</i>	<i>gulapin</i>	
		<i>gulesino</i>	<i>gulapino</i>	
1p o		<i>gulnysan</i>	<i>gulminapin</i>	<i>gulhinanin</i>
		<i>gulnysano</i>	<i>gulminapino</i>	<i>gulhinanino</i>
3p o		<i>gulysan</i>	<i>gulnapin</i>	
		<i>gulysano</i>	<i>gulnapino</i>	
3s a	<i>gulinek</i>			
	<i>gulinok</i>			
	<i>guloak</i>			
1s o		<i>gulnetnek</i>	<i>gulnapinek</i>	<i>gulhaninek</i>
		<i>gulnetnok</i>	<i>gulnapinok</i>	<i>gulhaninok</i>
		<i>gulnesoak</i>	<i>gulnapoak</i>	<i>gulhanoak</i>
		<i>gulneanek</i>		
		<i>gulneanok</i>		
		<i>gulhetnek</i>	<i>gulhapinek</i>	<i>gulhakanek</i>
		<i>gulhetnok</i>	<i>gulhapinok</i>	<i>gulhakanok</i>
2s o		<i>gulhesoak</i>	<i>gulhapoak</i>	<i>gulhakaok</i>

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Adhortative				
3s o		<i>guletnek</i> <i>guletnok</i> <i>gulesoak</i>	<i>gulapinek</i> <i>gulapinok</i> <i>gulapoak</i>	
1p o		<i>gulnysanek</i> <i>gulnysanok</i> <i>gulnysaolak</i>	<i>gulninafinek</i> <i>gulninafinok</i> <i>gulninafoak</i>	<i>gulhinaninek</i> <i>gulhinaninok</i> <i>gulhinanoak</i>
2p o		<i>gulhysanek</i> <i>gulhysanok</i> <i>gulhysaolak</i>	<i>gulhinapinek</i> <i>gulhinapinok</i> <i>gulhinapoak</i>	<i>gulhinakanek</i> <i>gulhinakanok</i> <i>gulhinakaok</i>
3p o		<i>gulhsanek</i> <i>gulhsanok</i> <i>gulhsaolak</i>	<i>gulinapinek</i> <i>gulinapinok</i> <i>gulinapoak</i>	
1p a	<i>guluok</i>			
2s o		<i>gulhesuok</i>	<i>gulhapuok</i>	<i>gulhakvok</i>
3s o		<i>gulesuok</i>	<i>gulapuok</i>	
2p o		<i>gulhysuok</i>	<i>gulhinapuok</i>	<i>gulhinakvok</i>
3p o		<i>gulhsuok</i>	<i>gulinapuok</i>	
2p a	<i>gulini</i> <i>gulinio</i>			
1s o		<i>gulnesini</i> <i>gulnesinio</i> <i>gulneani</i>	<i>gulnapini</i> <i>gulnapinio</i>	<i>gulhanini</i> <i>gulhaninio</i>
3s o		<i>gulesini</i> <i>gulesinio</i>	<i>gulapini</i> <i>gulapinio</i>	

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Adhortative			
1p o	<i>gulnysani</i>	<i>gulninaḡini</i>	<i>gulhinanini</i>
3p o	<i>gulnysanio</i>	<i>gulninaḡinio</i>	<i>gulhinaninio</i>
	<i>gubysani</i>	<i>gulinaḡini</i>	
3p a	<i>gubysanio</i>	<i>gulinaḡinio</i>	
plural actor	same as 3s a		
together <i>guloakai</i>			
1s o	<i>gulnesoakai</i>	<i>gulinaḡoakai</i>	<i>gulhanoakai</i>
2s o	<i>gulhesoakai</i>	<i>gulhaḡoakai</i>	<i>gulhakoakai</i>
3s o	<i>gulesoakai</i>	<i>gulaḡoakai</i>	
1p o	<i>gulnysaoakai</i>	<i>gulninaḡoakai</i>	<i>gulhinanoakai</i>
2p o	<i>gulhysaoakai</i>	<i>gulhinaḡoakai</i>	<i>gulhinakoakai</i>
3p o	<i>gubysaoakai</i>	<i>gulinaḡoakai</i>	
Prohibitive			
2s a	<i>gulhvn</i>		
	<i>gulhvdek</i>		
	<i>gulhe hvk</i>		
1s o	<i>gulnethvn</i>	<i>gulnaphvn</i>	<i>gulhanhvn</i>
	<i>gulnethdek</i>	<i>gulnaphvdek</i>	<i>gulhanhvdek</i>
	<i>gulnethe hvk</i>	<i>gulnaphe hvk</i>	<i>gulhanhe hvk</i>
	<i>gulethvn</i>	<i>gulaphvn</i>	
	<i>gulethvdek</i>	<i>gulaphvdek</i>	
3s o	<i>gulethe hvk</i>	<i>gulaphe hvk</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Prohibitive				
1p o		<i>gulnysikke hvk</i>	<i>gulinaphon</i> <i>gulnaphvdek</i> <i>gulinaphe hvk</i> <i>gulinaphon</i> <i>gulnaphvdek</i> <i>gulinaphe hvk</i>	<i>gulinanhn</i> <i>gulninhvdek</i> <i>gulinanhe hvk</i>
3p o		<i>gulysikke hvk</i>		
2p a	<i>gulhvp</i> <i>gulhusep</i> <i>gulhe hvk</i>	<i>gulnethvp</i> <i>gulnethusep</i> <i>gulnethe hvk</i> <i>gulethvp</i> <i>gulethusep</i> <i>gulethe hvk</i>	<i>gulnaphvp</i> <i>gulnaphusep</i> <i>gulnaphhe hvk</i> <i>gulaphvp</i> <i>gulaphusep</i> <i>gulaphe hvk</i> <i>gulinaphvp</i> <i>gulnaphusep</i> <i>gulinaphe hvk</i> <i>gulinaphvp</i> <i>gulnaphusep</i> <i>gulinaphe hvk</i>	<i>gulhanhvp</i> <i>gulhanhusep</i> <i>gulhanhe hvk</i>
1s o				
3s o		<i>gulnysikke hvk</i>		<i>gulinanhn</i> <i>gulninhvdek</i> <i>gulinanhe hvk</i>
1p o				
3p o		<i>gulysikke hvk</i>		

plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Intentional			
sg. a <i>gukikiluk</i>			
1s o	<i>gubnesikiluk</i>	<i>gubnapikiluk</i>	<i>gubhanikiluk</i>
2s o	<i>gubhesikiluk</i>	<i>gubhapikiluk</i>	<i>gubhakakaluk</i>
3s o	<i>gulesikiluk</i>	<i>gublapikiluk</i>	<i>gubhinanikiluk</i>
1p o	<i>gubnysakaluk</i>	<i>gubnnapikiluk</i>	<i>gubhinakakaluk</i>
2p o	<i>gubhysakaluk</i>	<i>gubhinapikiluk</i>	
3p o	<i>gubysakaluk</i>	<i>gubnapikiluk</i>	
pl. a <i>guluokoluk</i>			
1s o	<i>gubnesuokoluk</i>	<i>gubnapuokoluk</i>	<i>gubhanuokoluk</i>
2s o	<i>gubhesuokoluk</i>	<i>gubhapuokoluk</i>	<i>gubhakvokoluk</i>
3s o	<i>gulesuokoluk</i>	<i>gublapuokoluk</i>	<i>gubhinanuokoluk</i>
1p o	<i>gubnysvokoluk</i>	<i>gubnnapuokoluk</i>	<i>gubhinakvokoluk</i>
2p o	<i>gubhysvokoluk</i>	<i>gubhinapuokoluk</i>	
3p o	<i>gubysvokoluk</i>	<i>gubnapuokoluk</i>	
Objective infinitive			
<i>gulu</i>			
1s o	<i>gubnesu</i>	<i>gubnapu</i>	<i>gubhanu</i>
2s o	<i>gubhesu</i>	<i>gubhapu</i>	<i>gubhaku</i>
3s o	<i>gulesu</i>	<i>gublapu</i>	
1p o	<i>gubnysau</i>	<i>gubnnapu</i>	<i>gubhinanu</i>
2p o	<i>gubhysau</i>	<i>gubhinapu</i>	<i>gubhinaku</i>
3p o	<i>gubysau</i>	<i>gubnapu</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Voluntative				
	<i>gulusak</i>			
1s o		<i>gulnesusak</i>	<i>gulnapusak</i>	<i>gulhanusak</i>
2s o		<i>gulhesusak</i>	<i>gulhapusak</i>	<i>gulhakausak</i>
3s o		<i>gulesusak</i>	<i>gulapusak</i>	
1p o		<i>gulnysausak</i>	<i>gulhinapusak</i>	<i>gulhinanusak</i>
2p o		<i>gulhysausak</i>	<i>gulhinapusak</i>	<i>gulhinakausak</i>
3p o		<i>gulysausak</i>	<i>gulinapusak</i>	
Contingent				
	<i>gulinoko</i>			
1s o		<i>gulnesinoko</i>	<i>gulnapinoko</i>	<i>gulhaninoko</i>
2s o		<i>gulhesinoko</i>	<i>gulhapinoko</i>	<i>gulhakanoko</i>
3s o		<i>gulesinoko</i>	<i>gulapinoko</i>	
1p o		<i>gulnysanoko</i>	<i>gulhinapinoko</i>	<i>gulhinaninoko</i>
2p o		<i>gulhysanoko</i>	<i>gulhinapinoko</i>	<i>gulhinakanoko</i>
3p o		<i>gulysanoko</i>	<i>gulinapinoko</i>	
Idiosyncratic				
	<i>gulho</i>			
1s o		<i>gulmetho</i>	<i>gulnapho</i>	<i>gulhanho</i>
2s o		<i>gulhetho</i>	<i>gulhapho</i>	<i>gulhakikho</i>
3s o		<i>guletho</i>	<i>gulapho</i>	
1p o		<i>gulnysikho</i>	<i>gulhinapho</i>	<i>gulhinanho</i>
2p o		<i>gulhysikho</i>	<i>gulhinapho</i>	<i>gulhinakikho</i>
3p o		<i>gulysikho</i>	<i>gulinapho</i>	

	plain	1st obj. voice	2nd obj. voice	3rd obj. voice
Durative				
	<i>gulyk</i>			
1st resultative				
	<i>gulek</i>			
Detached act. past partic.				
	<i>gulytuk</i>			
1s o		<i>gulnetluk</i>	<i>gulnapyluk</i>	<i>gulhanyluk</i>
2s o		<i>gulhetluk</i>	<i>gulhapyluk</i>	<i>gulhakalok</i>
3s o		<i>guletuk</i>	<i>gulapyluk</i>	
1p o		<i>gulmysalok</i>	<i>gulhinapyluk</i>	<i>gulhinanyluk</i>
2p o		<i>gulhysalok</i>	<i>gulhinapyluk</i>	<i>gulhinakalok</i>
3p o		<i>gulyvalok</i>	<i>gulinatyluk</i>	
1st bound act. past partic.				
	<i>gulhoko</i>			

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