# The morphology of Yali and Dani 

 a descriptive and comparative analysisChr. Fahner

1. Door het niet in acht nemen van het woord-accent en het gebruik van een niet geheel consistente terminologie makt Van der Stap's beschrijving van de morfologische structuur van de Dani-taal, deze nog ingewikkelder dan in feite reeds het geval is. N.a.v.: P.A.M. van der Stap, Outline of Dani morphology, The Hague 1966.
2. Broekhuijse's vertaling van brokstukken Dani-taal is in zoverre inadequaat, dat daaruit niet blijkt dat rekening gehouden wordt met verschillen in morfologische categoriebn tussen het Nederlands en het Dani.
N. a.v.: J.Th. Broekhuijse, De Wiligiman-Dani, Tilburg 1967
3. Het is in morfologische studies vakk niet nodig de lexicale betekenissen van ter illustratie aangehaalde woorden of woordgroepen uitvoerig te vermeiden.
4. Het levert bij de historische ordening van morfologische categorieýn, die zowel in het Yali als in het Dani bestaan en dezelfde semantische kenmerken hebben, maar formeel onderscheiden zijn door een ongelijke mate van complexiteit, een consequenter beeld op, wanneer men veronderstelt dat de meer gelede vormen een ouder stadium van de ontwikkeling van beide talen vertegenwoordigen, dan wanneer men het tegenovergestelde veronderstelt.
5. Als het werk van Swadesh het waard is gedrukt te worden, is dat van Trombetti het waard herlezen te worden. M. Swadesh, The origin and diversification of language. London 1972.
A. Trombetti, L'unità d'origine del' linguaggio, Bologna 1905
6. Uitsluiting van het "tertium non daretur" levert geen belangrijke bijdrage aan de taalwetenschap op. N.a.v.: M.C.v.d. Toorn, Methodologie en taalwetenschap, Utrecht 1978, pag. 217 en volg.
7. Het is niet wenselijk over dierlijke communicatie antropon morfistisch te spreken; evenmin als het dat is om over menselijke taal theriomorfistisch te handelen. N.a.v.: F.G. Droste, Bij wijze van spreken, Baarn 1977, pag. 24 en volgende.
8. Het verdient aanbeveling de term evolutie in de culturele antropologie te vervangen door een andere, b.v, ontwikkeling, on te voorkomen dat de aan deze term verbonden en bestreden voorwetenschappelijke denkinhouden ook in het antropologisch onderzoek onnodige verwarring zouden veroorzaken.
N.a.v.: H. Claessen en P. Kloos, Evolutie en evolutionisme, Baarn 1978.
9. De volgende definitie van religie is voor cultureelantropologisch en ander sociaal-wetenschappelijk onderzoek zeer bruikbaar: Religie is de totaliteit van voorstellingen en handelingen die betrekking hebben op de als fundamenteel beleefde werkelijkheid. N.a.v.: P.J. Versteeg, e.a. Gij die eertijds wart... Utrecht 1978, pag. 260
10. De omstandigheid dat oudere en jonge Yali's d.m.v. het gebruik van een in sterke mate fonemische spelling in korte tijd en met genoegen hun eigen taal leerden schrijven en dat Nederlanders d.m.v. een verre van fonemische spelling in lange tijd, of soms nooit en vaak met ongenoegen over hun gestrafte consequentie, hun eigen taal leren schrijven, houdt een pleidooi in voor een zoveel mogelijk op fonologische gegevens gebaseerde spelling van het A(lgemeen) $N(e d e r l a n d s)$.
11. Het liegen als vorm van taalgebruik is in het algemeen een taalwetenschappelijk onvoldoende bestudeerd fenomeen.
12. Supervisie als leermethode in het sociaal-pedagogisch onderwijs behoeft nadere sociaal-wetenschappelijke fundering.
13. Het is binnen het welzijnswerk mogelijk om methoden en technieken, ontwikkeld op basis van een bepaalde levensbeschouwelijke gedachtengang, te gebruiken zonder daarmee ook de achterliggende filosofieen over te nemen.
14. De materialistische uitleg van de Bijbel is in zoverre imperialistisch, dat deze het terrein van de exegese in beslag wil nemen. N.a.v.: M. Clèvenot, Een materialistische benadering van de Bijbel, Baarn 1979.
15. Het register trompet op zogenaamde elektronische orgels stelt veelal geen fluit voor.

Chr. Fahner

## Errata:

p. V, 14 who: wham
p. 7, 34 intervocally: intervocalically
p. 15, 6 polymorphemic: polymorphematic
p. 26, 32 blocking: blockading
p. 52,6 factivity: factuality
p. 136,10 roots of: roots consists of prefixed roots of

The morphology of Yali and Dani
a descriptive and comparative analysis

# The morphology of Yali and Dani <br> a descriptive and comparative analysis 

## PROEFSCHRIFT

ter verkrijging van de graad van
Doctor in de Letteren
aan de Rijksuniversiteit te Leiden, op gezag van de Rector Magnificus

Dr. D. J. Kuenen,
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door

## Christiaan Fahner

geboren te Zwolle in 1944

Promotor: Prof. Dr. J. C. Anceaux

## Preface

Looking back to a period of several years - from 1969 to 1973 - of serving as a missionary linguist among the Yali people of Irian Jaya's Central Highlands, is for me recalling a great many unusual experiences. One of them was the study of the Abenaho Yali language, which hitherto had not been the subject of extensive investigation.
The work included numerous sessions with informants, who did a remarkable job in trying to find out and explain the intricacies of their language, while changing at least a part of their pattern of life and devoting lots of time to the discussion of matters which in former times would not have been a favourite subject of reflection. The informants and the many other Yali's who we met during our stay are remembered with great gratitude. Among many other people who made our years in Irian unforgettable, our thanks are due to missionaries working in other parts of the Highlands, who shared with us their knowledge and problems in talks and fellowship. I am especially grateful to Myron Bromley, Dave Scoville and Siegfried ZBllner for their support and co-operation. The very important help given by the pilots of the Mission Aviation Fellowship will also remain unforgettable to us; without their assistance a very great part of missionary and other endeavours in the Highlands would have been impossible altogether.

Now that this book, as one of the results of our stay, is finished, I would like to thank also Ms. A. van de Berktvan der Tang and Ms. A. Swen-Poldervaart, who typed the manuscript. I am greatly indebted to Dr Carol H. Molony who has been kind enough to weed out the worst errors in the English text.
Finally, I owe a great debt to my wife, who proved to be an invaluable companion during our stay in Irian and thereafter.

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## 1 Introduction

### 1.1 The subject and purpose of the study

The following pages offer a comparative morphology of two languages, spoken in the central Highlands of Irian Jaya, the former West-Irian(1). Until now the only comparative study which dealt with languages related to the ones to be described, was a report on "The linguistic relationships of Grand Valley Dani", written by M. Bromley (2). This study centers upon a language spoken in the Balim Valley, but shows, on lexicostatistical grounds, its relationship with other members of the Dani language family. Of this Dani language three sub-families can be distinguished, which in their turn can be divided into different dialects (3). Bromley's study clarifies a good deal of the picture of the geographical distribution of a group of languages and dialects which are spoken in the main part of the Central Highlands. (4)
To refine the picture in some respects, the present study compares the morphology of two languages which are related on the sub-family level in Bromley's classification: the Abenaho dialect of the Yali language and the Mugogo dialect of the Grand Valley Dani language. The latter dialect was chosen because its morphology was extensively described by P.A.M. van der Stap OFM, who in his work invited comparison with other languages (5). Van der Stap himself felt strongly about offering data for comparison, for he remarked: "To provide future comparative linguists with working materials is one of the purposes of the present description of Dani morphology" (6). Although I disagree with several of his conclusions, his pioneer work was a major contribution in the field of the Highland languages.
My re-analysis of some of Van der Stap's data on comparative grounds which forms part of the present volume, was about finished when Bromley's thesis on the Mid Grand Valley Dani language saw the light (7). Bromley's study, although not focusing on morphological matters, backed up my reassesment of the Dani materials.
Thus, while information on the Dani language is ample, for the Yali language no printed material has been available. That is why a great part of the present study will be devoted to a morphological description of the Yali language, i.e. of its Abenaho dialect in particular.

Thus, while the central problem in the following pages deals with the relationship between the Yali and Dani languages in terms of morphology, each section will, first, contain a description of Yali morphology and second, compare the results with those obtained by Van der Stap. Some additional information on the lexicostatistical classification of both languages and a survey of Yali phonology will precede general remarks on the concept of the word ani other morphological terms in this study. After this the morphology of nominal categories will be described, followed by the discussion of verbal categories. The conclusion will summarize the results.

### 1.2 The lexico-statistical classification of the Abenaho Yali language

The following diagram shows the relationship of some of the languages and dialects belonging to the Dani family.


Only some of the above dialects have been described. Those which constitute the Grand Valley Dani language were analyzed phonologically by Bromley (8); his description mentions six dialects within this language. The Mugogo dialect, however, is not reported therein; this is no problem as its phonological position can be easily determined (9). Three Yali languages were reported by Bromley in his study on Dani language relationships: the Ninia language, the Kapia language and the Angguruk language (10). For the purpose of the present study it is sufficient to add one more, the Abenaho language, and to state that it is a member of the Yali - in Bromley's terminology North Ngalik - group of languages, without going very far into the differences which no doubt exist between the members of this group (11). Bromley's lexicostatistical calculations, based on the Swadesh 100 word list with some adjustments, yielded the following results (12): Angguruk and Ninia share $90 \%$ of basic vocabulary, Angguruk and Kapia $87 \%$. Percertages of cognates with languages outside the Yali subfamily are: Angguruk and Pyramid $60 \%$, Angguruk and Mid Grand Valley 61 \%, Kapia and Mid Grand Valley 76 \% (13).
After filling out the word list for the Abenaho Yali Language, I calculated the following percentages of cognation: Anggruruk and Abenaho share $88 \%$, Abenaho and Mid Grand Valley $74 \%$, Abenaho and Pyramid $65 \%$ (14). These percentages show the pattern which might be expected in view of the geographical situation (15).

## 2 Summary of Yali phonology

2.1. General_remarks

As can be seen on the map on pg. XI, the Abenaho valley is the westernmost territory in which the Yali language is spoken. In the adjacent valleys other languages are used: in the Ilugwa area one finds a language which can be considered a member of the Western Dani sub-family; it is nearly identical with the Wodlo dialect (16). South of Abenaho, in the Wadlangeu valley, a Grand Valley Dani dialect is spoken, which is very similar to the dialect named Lower Kibin by Bromley (17). The people of Landikma, also living in the Pass-valley, use a Yali dialect which is slightly different from the Yali spoken in Abenaho (18). In the valley east of Abenaho , one finds anothex Yali dialect, mentioned as Kapia or Mid-Hablifoeri Dani by Bromley, but more recently termed Apahapsili after a local name (19).

Up until recent history, i.e. roughly until the mid sixties, the communities of Landikma and Abenaho were separated by traditional enmity. The Yali's of Abenaho, however, were connected with the Dani people in the Ilugwa and Wadlanggu valleys by ties of family and friendship; there must have been a substantial influence from Dani of Abenaho Yali because of these relationships. (20). Investigations so far do not indicate that the influence was mutual.

The impact of interlingual contact is observable in both phonology and morphology. As for phonology, some Dani phones became mixed in with Yali phonemes in Abenaho; this resulted in a phonological pattern which is more intricate than the one found in e.g. Angguruk. The Yali language there apparently could develop in more isolation. For the description of Yali phonology we can take as a starting point the phonological survey of some Dani dialects given by Bromley (21). One might expect Yali to be a specialization of the hypothetical pattern described as Protomani. In fact it is more congruent with this pattern than are some of the dialects sketched by Bromley (22).

### 2.2. Practical orthography

Something must be said about the practical orthography which is in use in the local literacy classes in the Abenaho area and will be used in the present study to symbolize Yali language. Especially in
the notation of the stop series, this local orthography departs considerably from the phonemic picture as sketched below. As Pike remarked, the presence of a second language which functions as a trade language can modify the vernacular orthography in such a way that allophones of phonemes are wxitten down with different characters (23). For Yali speakers Indonesian is such a second language. Thus, two main factors have influenced the modification of phonemical Yali orthography for practical use: first, the desirability of using characters with a value which is as close as possible to those available in the Indonesian alphabet, and second, the need of facilitating the process of learning to read for illiterates by admitting into the practical orthography some phonetic peculiarities which otherwise would have no impact on the phonemic symbolisation of the language. That the practical orthography is maintained in this study has its reasons also. The present writer is familiar with it, as are others who might consult the study. Besides, the above cited book on Dani morphology by Van der Stap uses a practical orthography; therefore using the Yali orthography will facilitate the purpose of comparison (24). And, after the phonological introduction given in this volume, linguists will meet no difficulties in recognizing the phonemes behind the letters.

The following symbols are used in the Abenaho Yali orthography:

### 2.1 Vowels

a, $\underline{e}, \underline{i}, \underline{o}$, $\underline{u}$ as in the phonemic orthography. Diphthongs, when occurring, will be symbolized by a digraph (mainly ai and au).

### 2.2 Consonants

b : bilabial stop, word initially, intervocalically
p : bilabial stop, word finally, medially in clusters
mb : digraph for bilabial prenasalised stop intervocalically
f : bilabial fricative, word initially
d : gingival stop, word initially
nd : prenasalised gingival stop, intervocalically
re:gingival stop, intervocalically (24a)
t : a) gingival stop, word finally, in clusters
b) aspirate stop/geminate cluster intervocalically

日 : sibilant, gingival fricative, word initially, medially
k : velar stop, all positions
h : uvalar fricative, word initially, intervocalically, in clusters
$g$ : a) heavy voiced velax stop word initially and medially
b) uvalar fricative word finally
ngg : trigraph for prenasalised velar stop intervocalically
W : bilabial consonantal vocojd word initially and medially
Y : velar consonantal vocoid word initially and medially
rl : digraph for gingival implosive
1 : lateral in all positions
ㅡ : bilabial nasal in all positions
n : gingival nasal in all positions

### 2.3. Points of articulation

As in other Dani languages, consonants in Yalj are articulated at four points. There is however in Yali an important difference: besides the bilabial, gingival and velar articulations found in other Dani languages, the uvular point is distinguished for Yali. (In this respect the Angguruk pattern coincides with Abenaho.) On the other hand, unlike other Dani languages, there is no reason to postulate for Yali a series of stops with labio-velar articulation as separate phonemes. Considering the fact that Bromley mentions labio-velar stops as full phonemes in all the nine patterns which he describes, it is the more important to state the absence of this series in Yali. To be sure, velar stops with lip rounding are found occasionally in Abenaho Yali, but, in the present situation, they do not show any contrast with the velar phonemes; consequently they can be assigned as allophones of the velar series, while their importance is mainly in the sphere of the idiolect (25). The Abenaho situation in this respect is congruent with Angguruk Yali, where labialisation of velar stop does not occur at all, as far as $I$ know (26).

### 2.4. Stops

Present day Yali has one set of stops, occurring at the bilabial, gingival and velar points of articulation. The stops are distributed
over all word positions, initially, intervocalically, finally and in clusters.
Prenasalized stops occur also at the above-mentioned points of articulation, but their distribution is restricted to word medial positions found only between vowels. The prenasalized stops are found mainly in certain grammatical constructions. Cases of minimal pairs showing the opposition prenasalized vs. unprenesalized are not many, but are sufficient to show the contrast. This could indicate the existence of a latent quality of the stop series, the traces of which have disappeared in most positions. Indeed, some of the Dani dialects mentioned by Bromley, e.g. Western Danj, have one of the two stop series of the inferred consonant pattern of Proto Dani fully prenasalized. The prenasalized stops in Yali could be remnants of such a series. Speaking in terms of phonetics, the Yali stops in some positions i.e. in initial pcsitions and between vowels, could be styled as voiced, in other positions i.e. in final position and in clusters as voiceless. The question might be raised however, if there is any relevance in applying these adjectives as far as Yali phonology is concerned (27). Within anyone dialect distinctive voicing opposition between stops is not found. The fact that in one dialect a stop in word initial position has some voicing, e.g. Abenaho, and in another, e.g. in Anggumuk the stop in the same word and position is almost voiceless, demonstram tes the basic absence of the opposition as phonemically distinctive (28). Though this is true for the stop series in general, one exception has to be made for an interesting stop in the Abenaho dialect. In it, a heavily voiced velar stop is found, where one would expect the usual lessmvoiced one (29). Because this voiced stop, found in initial and intervocalic position, has contrastive value, it has to be included as a separate phoneme. As the phoneme is not found in otherse.g. the Angguruk dialect, one feels inclined to consider the voiced velar stop as a result of Dani influence from the Balim Valley, the more so because some of the words showing the stop are recognizable as loan words from that region (30).
The occurrence of an aspirated gingival stop intervocally raises something of a problem, because at none of the other points of arti-
culation is a comparable sound heard (31). This aspirated stop, which figures mainly in some verbal categories, can best be regarded as a geminate cluster of the usual gingival stop. The same sound occurs in the word utag; I maintain the same description for it then, although without morphological explanation in this case.
The following words are meant as illustrations of the phonological remarks in this chapter. I classify these words by position of the consonant, i.e. 1. word initially
2. word final
3. word medially, in intervocalic position.

Phoneme:
/b/

1. bak "forest animal"
2. ap "man"
3. ebe"body"
/mb/
4. ambol "back"
/d/
5. dom "mountain"
6. mot "straight"
7. maren "how much"
/nd/
8. indi "heart"
/t/
9. wituk "to produce"
/k/
10. kema "where"
11. ik "water"
12. bikit"straight"
/ng/
13. anggen "seed ${ }^{\text {n }}$
/g/
cf.notes 32 and 33

### 2.5. Fricicatives

The stop phoneme series in Yali is paralleled by a somewat incomplete series of fricatives.
A fricative with bilabial articulation occurs word initially and in clusters, but it is not found elsewhere. Prefixed forms, corresponding with words having the initial bilabial fricative, show bilabial stop instead (34).

At the uvular point of articulation Yali has a fricative which occurs pretty consistently in all positions; word initially, intervocalically, in clusters and word finally. In some positions e.g. word initially, slight occlusion can be observed, although the fricative character of the phoneme is not lost. The same can be said of the phoneme in word final position; nevertheless it will be clear that there is no neutralisation of this fricative with the velar stop (35). Compared with the bilabial and uvular fricatives, the sibilant can be considered as their gingival equivalent. It is found word-initially, intervocalically and in clusters. In these positions it is contrastive with the gingival stop in the Abenaho dialect; cognates of words showing sibilant in Abenaho often have an aspirated gingival stop in Angguruk, however (36). Besides, one finds sibilant alternating with dental stop in some morphological categories in the Abenaho dialect (37). In several Dani dialects the sibilant is an allophone of the gingival stop and is not contrastive with the flap (38). But, as said, in the Abenaho dialect sibilant is contrastive with the stop; this is a sufficient reason to include it as a separate phoneme (39).

## Examples

/프/

1. sum "net"
2. wasup "saliva"

## /ng/

3. anggen "seed"
/h/
4. hali "banana"
5. kulog"male animal"
6. yoho "today"
/ 1
7. fohot "peace"
2.6. Other consonantal phonemes

Whereas the stops and fricatives in Yali, especially in the Abenaho dialect, constitute a rather intricate pattern, the description of other consonantal phonemes does not cause great difficulties (40). Nasal phonenes are found at the bilabial and gingival points of articulation; they occur without distributional restrictions. The velar nasal is found sometimes, in positions however, where other Yali speakers use the gingival nasal; as such the velar nasal has only idiolectical importance. The velar nasal is also found preceding the velar stop; in that case, however, the apparent cluster can be considered as one separate phoneme, i.e. the prenasalized velar stop (41).
The lateral in Yali occurs in all positions.
In the Abenaho Yali a gingival implosive is found; this phoneme occurs only in word medial position and is contrastive with the lateral (42). Since the gingival implosive does not occur in other Yali dialects, as far as $I$ know, at least not in Angguruk, its presence in Abenaho can be understood as a result of the peculiar geographic situation of the Abenaho area; in both adjacent Dani dialects the gingival implosive is a full phoneme (43). Other ev idence that the implosive in Abenaho is apparently borrowed from Dani is the occurence of certain words in which the gingival stop freely alternates with the implosive (44).
Consonantal vocoids with bilabial and gingival articulation are found in Yali as in all Dani dialects described by Bromley (45). They occur mainly in word initial and intervocalic position.

## Examples



## /8/

1. rlanggopma "former compound"
2. irlilmu "hidden place"
/y/
3. yatma "far"
4. eyabuk "his garden"
/w/
5. Wene "story"
6. awen "his garden-bed"

### 2.7. Vowels

The vowel pattern of Abenaho Yali is similar to that of the Dani dialects spoken in the Wodlo and Upper Hablifuri valleys (46); this means that it consists of five vowels. In this respect the Abenaho dialect deviates from the seven vowel pattern as described for most Dani dialects and also for other Yali dialects; in Angguruk seven vowels are found.

In some words diphthongs occur, but in only a very few cases. Like other less-frequent phonological features, diphthongs can best be considered results of contacts with Dani speaking communities (47). Examples of words illustrating vowel distribution, are contained in the listagiven above. More examples showing the distribution of consonants as well as vowels, can be found in Appendix III.
2.8. Diagram showing the phonemes of Abenaho Yaid in retrospect The above given survey of Abenaho Yali phonology may bepresented in the following diagram.

Vowels (as in Wodlo valley Dani) (48)

| Tongue height | Tongue position + lip shape |  |  |
| :---: | :---: | :---: | :---: |
|  | Front, unrounded | Central | Back, rounded |
| High | i |  | u |
| Mid | e |  | 0 |
| Low |  | $a$ |  |

## Consonants

| Manner of <br> articulation | Point of articulation |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | bilabial | gingival | velar | uvular |
| stop | b | d | $\mathrm{k} / \mathrm{g}$ |  |
| prenasalized stop | mb | nd | ng |  |
| aspirated stop | $(\mathrm{p})$ | t |  |  |
| fricative | f | s |  | h |
| nasal | m | n |  |  |
| implosive |  | $\delta$ |  |  |
| lateral |  | l |  |  |
| consonantal vocoid | w | y |  |  |

### 2.9. Consonant clusters

The occurence of consonant clusters is illustrated in the following lists. The examples given do not indicate, however, that the clusters in fact are not found very frequently, as proven by check on a number of words. An examination of a large number of words de.. monstrated cluster infrequency as follows. The words examined did not include words which have primary word stress on a syilable other than the final one, or members of any of the morphological categories, discussed in this study. Of the words, about $13 \%$ were monosyllabic. A count of the word-medial clusters and single consonants found in the remaining polysyllabic words yielded that out of each twelve word-medial positions only one was filied by a cluster. This ratio of 1 : 11 means that on a average in seven different polysyllabic words (the words restricted in the sense, given above), one cluster can be found, over against eleven intervocalic single consonants; these figures presuppose that there are about seven intervocalic positions in four different words.
The lists of clusters given below are based on a word list of about 1600 words, which include verb roots and some words with primary stress on a syllable other than final. Some conceivable clusters were not found in the mentioned list; of course this does not necessarily mean that such a cluster is totally absent in the Abenaho language, although I do not think that there is much chance to meet one. As words showing examples of clusters only those are given which do not have primary stress on the syllable immediately preceding the cluster in question. Polymorphematic words which are members of a morphological category described in this book are followed by the mark (c). Clusters consisting of a consonant preceded or followed by one of the semi-vowels $\underline{W}$ or $y$ were found only rarely and then only one or two times in a reduplicated word. Consequently, the following lists offer examples of combinations of only the following phonemes: $\underline{b}, \underline{\alpha}, \underline{k}, \underline{f}, \underline{\underline{h}}, \underline{I}, \underline{m}, \underline{n}$.

Clusters with /b/ as first phoneme.
Not found were /bd and/bk/;hf/ occurs only following a stressed syllable
in words which are members of the causative voice category (cf.ch.6.7)

| /bs/ | sipsip | "a kind of banana" |
| :---: | :---: | :---: |
| 1 bl | duphe | "idem" |
| / bl/ | aliplip | 'itch" |
|  | aluplup | "scratch" |
|  | ahaplie | "kinship term" |
|  | haplanggen | ' heavy rain" |
|  | saplit | "cover" |
| $1 \mathrm{bm} /$ | alepma (c) | "upper side of garden-bed" |
|  | apma (c) | "below" |
| $1 \mathrm{bn} /$ | supnig (c) | "hanging" |
|  | gapna | "trap" |

Clusters with / d/ as first phoneme.
Not found was $/ \mathbb{d f}$; in the Angguruk dialect it was found in some
third person past tense forms: atfag, watfag; Abenaho cognates have
p instead of tf.

| /db/ bitpituhum 'a kind of bird" |  |  |
| :---: | :---: | :---: |
| / dk / | sutke | "a kind of sweet potato" |
|  | watke | "grass on roof of house" |
|  | sitkum | "a kind of mushroom" |
|  | abitke | "place without paths" |
| / ds/ | abutse | "not heavy" |
|  | it-soho | ) "totally" |
|  | at-saruk | (c) 'to hurt oneself" |


| /dh/ ahathet | "heath" |
| :--- | :--- |
| /dl/ atlo | "dislike" |
| /dm/ ambutmu (c) "place, towards water flows" |  |
| amitmit | "mass-yelling" |
| /dn/ yitna | "roof frame" |
| dimbatnue "a kind of forest animal" |  |
| (Instead of tn in some Angguruk forms, Abenaho has pm, e.g. |  |
|  |  |
|  |  |

Clusters with /k/ as first phoneme.
Not found was /k]/

| /kb/ bukpuk | "upright" |
| :--- | :--- |
| /kd/ arluktuk | "back part of skull" |
| inggikteg | "a kind of bird" |
| $/ \underline{k f} /$ ukfu | "magic to cure illness" |
| $/ \underline{k s} /$ iksaru | "kind of ulcer" |
| dohuksep-fV"to put out one's eyes" |  |
| /kh/ bakhele | "kind of ulcer" |
| /km/ silukmu | "place, not near the fire" |
| mikmaline | "a kind of bird" |
| /kn/ sinuknuk | "a bit crazy" |

Clusters with / $\underline{\underline{\prime} / \text { or } / \underline{s} / \text { as first phoneme were not found. }}$
Clusters with /h/as first phoneme.
Not found were / hb/ and/hd/.
/hk/ werehka "to the place, where somebody is"
/hf/ fohfog "to whisper"
wiyahfut "maizel"
/hs/ bahsele "cooking pit"
fanggohsep-fV (c) 'to push near"
/hl/ ahia "interior body"
/hm/ ahmu "pity"
/hn/ sahno "garden fire"
mahno "remaining part of wall"
Clusters with / $/$ / as first phoneme.
Not found was /ly.
/1b/ delpolangge "drop"
ambulpul 4 flame ( $s)^{n}$
/It/holtung "hacking cough"
Some forms of root final $\underline{\underline{l}}$ verbs show this cluster;
e.g. balte (c), baltihip ( $\bar{c}$ ).
/lk/ abelka "a kind of sweet potato4
bilkoko "truly"


Clusters with/n/as first phoneme.
Not found were /nb/ and/nf/ Whenever /nd/or/ngk/ occurred, they were interpreted as the prenasalized dental or velar stop.
ms/sensen "noise, made by people"
Foilowing a stressed syllable this cluster is found in members of compound categories, e.g. subun-sa (c) "to put one's net on" seleben-sV (c)"to sew"

| / $\underline{\mathrm{nh}} /$ | Following a stressed found in members of $c$ sen-ha (c) "to hold", |
| :---: | :---: |
| / nl/ fonlo | "a kind of sugar-cane" |
| / $\mathrm{nm} /{ }^{\prime}$ anduhunmu ( c ) | "above" |
| wahenma (c) | "after you came" |

The list of clusters above justify the following conclusions:

1. Phonemes which do not occur word-finally are also not found as the first consonant in a cluster.
2. Some clusters are found only in members of special morphological categories described in this study; for instance clusters are found at the juncture of word-base and morpheme (the question if the two are separated by primary accent on the base final syllable is of Ifttle relevance here), and consist of the word-base final phoneme and the morpheme initial phoneme.
3. Other clusters are found in words which in the past were apparently formed as a result of some process of reduplication (cr. note 129), or in words, composed of two other, still recognizable, words (e.g. ukfu, "magic to cure illness", cp. uk "sickness" and fu "magical blowing"; eamalhe, "kinship term", cp. eamal "kinship term", and he "woman").
4. The ocurrence of clusters apart from the cases mentioned in numbers 2 and 3 above is very limited; an etymological approach, if possible, probably would reveal their origin as well to be a result of composition.
2.10 Word accent

Anticipating the discussion of the use of the term "word" in Yali linguistics, I mention the occurrence of the accent as an important phonological feature; it functions as a major marker of the border between words. Although it is not necessary for the purpose of the present study to go very far into the subject of accent, some statements concerning it must be made, especially as the accent can be a guide in morphological analysis.

In Yali as well as in Dani, the accent is realized by "upgliding pitch and/or increased loudness" (49). Polysyllabic words which are monomorphemic have one word accent, resting on the final sylable. The same is the case with words which in terms of morphology contain a suffix (50). In the morphology of compound and composite verbs, however, we frequently meet forms where the accent is not on the final syllable of the form, but on the final syllable of its first component; sometimes this primary word accent is accompanied by a secondary accent on the word-final syllable (51). One could raise the question of whether these forms would not better be considered as two words. The answer should be negative, because besides the fact that this would fumish us with extra-systematical unstressed "words", the forms under discussion are inseparable, i.e. their composing parts cannot be isolated by the insertion of other words.
Also with the compound and composite verb forms and cliticized words, the accent consequently is a border marker, but in these cases not of the word final syllable but of the final syllable of the first of the composing parts. As to the notation of accent, in the present study it will be symbolized by a hyphen following the stressed syllable in the case of compound verb forms; in all other cases the accent will not be marked (52).

Recognition of the accent as a feature with border-marking characteristics can help us in straightening out intricate morphological pattems; in this respect it does not matter if Yali or Dani is the subject of investigation, because both languages agree as to the placement of stress (53).
It is with the importance of accent in mind that Bromley, while stating some differences in phonological approach between his and Van der Stap's description of the Dani language, mentions as a crucial one: "his (i.e. Van der Stap's, F) omission of any notation of the juncture between fully-stressed word nuclei and clitics which are stressed or have suppressed stress" (54).

In the description of several morphological categories, $I$ will refer back to the accent as a guide in morphological analysis (55).
2.11. The phonology of Abenaho Yali and Mugogo Dani

The synopsis given by Van der Stap (56) of phonemes found in Mugogo

Dani gives rise to the following comments on the differences between the two languages as far as phonology concerns (57):

1. The Mugogo language has seven vowels like most other Dani languages; Yali cognates of words, showing the respectively front or back high open vowels $y$ or $y$ in the Mugogo languages, generally have $\underline{\underline{i}}$ or $\underline{u}$ instead:

Dani Yali
akvn ahun "husband"
byggon binggon "Jew's harp"
saly sali "girl's skirt"
mosat monggat "soul, spirit"
2. The prenasalized stops, found in Yali, are missing in Mugogo Dani; the normal stops are found instead:

Dani Yali
ugul unggul "head"
egal enggal "nonsense"
byge binggi "stone-dead"
modok mondog "very" (adv.)
napy nambi "my louse"
3. The bilabial implosive is missing in Yali:

Dani Yali
elabpo elabo "youngest child"
4. Instead of the Yali uvalar fricative, we find in Dani cognates either the "voiceless continuant" h or the stop/fricative k; this last one, by the way, is intervocalically realized as a voiced velar fricative:

| Dani | Yali |  |
| :--- | :--- | :--- |
| nokoe yluk | noholug | "having slept" |
| halok | halug | "if" |
| Ieket | lehet | "fence" |
| hotok | horog | "near" |

5. Glottal stop, treated as a phoneme in Mugogo, although "its phonemic status as yet is uncertain" (58) does not occur in Abenaho Yali; in cognate words the usual Yali stops or fricatives are found
instead of glottal stop; also in Dani glottal stop sometimes alternates with the other stops:

Dani

| so'le, sokle, sotle | sohole | "smoke" |
| :--- | :--- | :--- |
| na'yt, napit | nambit | $" m y ~ d i s l i k e " ~$ |

Noteworthy, finally, is the often-noticed absence of word final consonant in Dani words, where Yali cognates have one (59).

Dani
Yali.

| su | sum | "met" |
| :--- | :--- | :--- |
| akho | anggom | "his pig" |
| $\underline{i}$ | $\underline{\text { ik }}$ | "water" |
| hidv | hondok | "fire wood" |
| negi | ninggik | "my hand" |
| nelu | $\underline{\text { niluk }}$ | "my knowledge" |

The differences noted here will show up again in the description of several morphological categories; besides, more items illustrating them, can be found in the adapted 100 word list, which figures as Appendix $I$ at the end of this study.
3. The morphology of non verbal categories

### 3.1 Morphological terms

As I have mentioned insection 2.10, the accent is the phonological criterion in Yali for defining "word". To handle the term "word" and others, Van der Stap gives some definitions, adopted from J.C. Anceaux's description of the Nimboran Language ( 60 ). They are applicable as well to the Yali language.
A word is defined as "the smallest independent meaningfull unit in a language, characterized by $1^{\circ}$ a fixed form, connected with a meaning, and $2^{\circ}$ isolability" (61).
Isolability here also implies inseparability of the elements of a word by the insertion of other words.
In morphology, words are grouped together in categories; a category is "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 difference in syntactic valence" (62). The formal feature marking members of a morphological category is called a "morpheme"; this term is also used for what is often called the basic alternant, i.e. the most common phonemic realisation of a morpheme.

The term "categoric meaning" is used for the semantic feature common to all members of a category, which corresponds with the morpheme. The following example shows some Yali forms, all of which are members of a category.

| baltikin | "you (ps) cut" |
| :--- | :--- |
| yatikin | "you planted" |
| belaptikin | "you put down" |
| kikiltikin | "you strewed" |
| wiliptikin | "you went out" |

The partial similarity in these forms can be easily recognised: the element tikin, which apparently indicates that 2 ps did some-
thing in the past.
The above forms can be opposed to other forms, from which they are differentiated by the same Cormal element:

| baltikinteg | "you (s) cut, and then you....." |
| :--- | :--- |
| yatikinteg | "you planted, and then you....." |
| belaptikinteg | "you put down, and then you...." |
| kililtikinteg | "you strewed, and then you ...." |
| wiliptikinteg | "you went out, and then you ..." |

In this ser:.es the element teg apparently is the formal feature marking members of a category; the categoric meaning seems to be the information that the form marked by teg is preceding another form, the subject of which is the same.
In these examples the two categories mentioned are not mutually exclusive; the categories then are of the same order. The categories of ch. 4.3 in the present study are of the same order, except for those showing third order morphemes.

In the following pages there are many examples of words which exhibit the same meaning and/or syntactic valence as other members of a category, but do not show an identical morpheme in the sense of basic alternant; the corresponding formal feature in those cases will be called an "allomorph".
Besides the already mentioned series of words, others can be found which are members of different morphological categories, but corresponding with each other in form and meaning: e.g.

| baltikin | "you (s) cut" |
| :--- | :--- |
| baloko | "cut (adv.)" |
| baleg | "cut (adj.)" |
| bal-isarisi | "he cut for them" |
| bal-inaptisi | "he cut them" |
| etc. |  |

A series like this is labelled "morphological set"; "the corresponding formal feature being called root, and the corresponding seman-
tic feature being called lexical meaning" (63). In the example given the root of the set apparently is bal; the lexical meaning "to cut". A phenomenon resembling the occurence of allomorphs, is the appearence of the suppletive root within a set; that feature comes up when in some categories one root is found, while in others of the same set i.e. with the same lexical meaning, another dissimilar root occurs. The main focus in the comparison of the morphology of Yaii and Dani will be on the recognition of identical categories in both languages. Identity here means that both formal and semantic features are similar. However, in the same way as allomorphs are found within one language, the semantic similarity of two categories each found in one of the two languages can be obvious, whilst the formal features are slightly or totally dissimilar; I will use the term "allomorph" in those cases also.

## 

As stated, Van der Stap uses the same terms in his description of Dani as I propose to do. However, except for the plain notion of category, he also confronts us with "secondary", "tertiary" and "pseudo-tertiary" categories. Parts D-F of his book are devoted to the analysis of "secondary" and "tertiary" categories. The reasons for the use of this terminology are explained as follows: "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 objectless verbs, but always in the train of voice-morphemes" (64).
Two objections can be made to this presentation of the facts. In the first place, the "tense and aspect-categories" are not "blocked by other categories" in the forms described, if we at least maintain the definition of category; but instead of the formal features described by Van der Stap in his parts $A$ and $B$ as characteristics of the various categories, slightly different formal features are found in the form described in his parts D-F, whereas the semantic characteristics are the same as those of comparable categories
described in parts $A$ and B. In short, the formal features mentioned in parts D-F are allomorphs of the morphemes mentioned in parts $A$ and $B$. But the notion of allomorphy is absent in Van der Stap's book; hence probably the choice of the terms "secondary" etc. categories.

But there is a far more serious objection to Van der Stap's presentation. Since he generally neglects word medial stress (and consequently does not have a clear picture of the compound character of many forms), he states that the "other categories" -. meant are the "secondary" etc. categories, i.e. "allomorphs" - "never occur .... in object-less verbs, but always in the train of voice-morphemes" (65). As I will show in ch. 4.3.1.1 this simply is not true. In fact the "morphemes" which Van der Stap describes as the formal features of his "secondary category" are allomorphs found with verb roots, which end in a vowel; in this respect there is no difference between forms of simple verbs (containing one root) and forms of compound verbs (containing a second root); only the latter group gets a chance, however, in Van der Stap's description. I cannot think of any reason why he has forgotten the important class of simple Dani verbs which show a vowel in root final position, but preoccupied himself mainly with the verbs which have a consonant in root final position. (These account for the "normal categories" of his parts A and B.)
Fortunately, he did not omit another group of verbs, which are baptized "existential verbs" (66). These constitute a special class in Dani, which includes the medial voice secondary root (67). Seen in this light, it is not a very "curious phenomenom that the tertiary categories resemble the corresponding categories of the so-called "existential verbs"" (68). There is no need either, to call the allomorphs found with this group of "existential verbs" "pseudo-tertiary" (69); for "tertiary categories" all bear on allomorphs found with the medial voice secondary root which, as said, belongs to the same verb class as the "existential verbs" (70).

### 3.2 Wordclasses

Morphology, while being concerned with words, leaves out of consideration those
words, which cannot be grouped within a morphological category. However such words can be classified, on account of their syntacti-
cal behavior, in word-classes; although the description in detail of all the word-classes which can be distinguished in Yali falls outside the scope of the present study, I list the word-classes here for the sake of completeness, including those which indeed are morphologicelly relevant:

1. nouns
2. pronouns
3. adjectives
4. verbs
5. adverbs
6. deictic words
7. postpositions
8. interjections and other particles

Some of these word-classes will hardly be mentioned in morphology. On the other hand, the statement for Dani "that it is difficult to describe morphology, while omitting the syntax" (71) is in some respects true for Yali also, since in several cases differences between morphological categories are shown by their syntactical valence. A practical solution to escape too lengthy discussions of syntactical problems, is offered by Van der Stap in the use of traditional word-class terms without further explanation, although he is "well aware that the content of these terms for Dani is slightly different from that for other languages" (72). This solution is attractive, but not entirely satisfying. Where the implications of Yali data elude the limitations set on terms used for language description in general, I will mention the departure; for Dani some comments on syntax can be found in very concise notes on the "use" of many moxphological categories. (73).

### 3.3 Non-verbal morphology

By far the biggest part of Yali morphology is made up of the verbal categories; also in Dani there are, outside of the morphological system of the verb, "comparatively few phenomena which are interest-ing from a morphological point of view" (74).
Since nominal categories sometimes exhibit morphological processes which also make their appearance in verb forms, e.g. prefixation of person markers, affixation of the adjunctive suffix etc., I will
describe these first.

## 

The only substantives in Yali, occurring with grammatical number, are those denoting some kind of social relationship or kinship. Other substantives are not marked for number. Within the kinship terms however, oppositions like the following are found (75):

$$
\begin{array}{ll}
\text { uhe, "wife" } & \text { uhesi, "wives" } \\
\text { ahun, "husband" } & \text { inahuni, "husbands" } \\
\text { ami, "mother's } & \text { brother" } \\
\text { etamus, "mother's brothers" } \\
\text { otarefather" etamuki, "forefathers" } \\
\text { ombia, "female } & \text { ancestor" ombiasi, "female ancestors" }
\end{array}
$$

This number category is characterized formally by plural morpheme i following the substantive; if the substantive final is a vowel, allomorphs are found which show a consonant preceding i. Because of the scantiness of the material it is impossible to predict which consonant will precede $\underline{i}$ in these cases; generally it is s, $\underline{k}$ or $n$. Even the alternative hypothesis can be defended, that these consonants are not part of the plural morpheme at all, but the final phoneme of bound allomorphs of the substantives occurring with suffixes. The alternation of the last vowel of the word with another vowel in some of the plural forms - e.g. ami vs. amusi, erek vs. emuki - could be a hint in this direction, but since in no other field of the language a comparable phenomenon is found, there is no possibility of testing this idea.

### 3.3.1.1 Comparisison

Dani data do not offer a conclusion either. The "categoroid" of grammatical number is found in that language, and the morpheme marking "plural" apparently is $\underline{v}(76)$. The consonant preceding the plural morpheme is $\underline{k}$ or $\underline{n}$, as far as can be concluded from the examples given by Van der Stap.
In both Yali and Dani this category is characterized by the same semantic feature, i.e. marking the plural of the underlying word.

At any rate, this procedure for expressing plural number is an isolated phenomenon in both languages. (77)
Outside the group of words denoting kinship or an other social
relationship, plural number is not maxked morphologically in other substantives.

### 3.3.2 Personal pronouns

The following series of personal pronouns is found in Yali:

| an | first | person | singular | (1 ps) |
| :---: | :---: | :---: | :---: | :---: |
| hat | second | " | " " | (2 ps) |
| at | third | " | " " | (3 ps) |
| $\underline{n i t}$ | first | " | plural | (1 pp) |
| hit | second | " | " ${ }^{\prime}$ | (2 pp) |
| it | third | " | " 7 | (3 pp) |

The person markers in this series can be analysed as:


The number aspect in the personal pronouns is indicated by markers, which in most cases follow the person marker:
a indicating singular
ㅊ indicating plural
Except for 1 ps, all personal pronouns have word final $t$; this element can be considered as a marker with the syntactic valence, that the personal pronouns are in the same syntactical positions as substantives.

### 3.3.2.1 Comparison

Dani personal pronouns are identical with the Yali ones, so no further comment is needed (78).
In both languages the word an, indicating 1 ps , is a blocking form, which shunts out the expected nat; one could imagine that in former times a metathesis has occurred ( ${ }^{(\$ n a t}>^{*}{ }^{\mathbf{*}}{ }^{t}{ }^{t}$ ), after which final $t$
 ence of a former ${ }^{\text {tant }}$ is suggested in Yali by the occurrence of a
dental stop, if an is followed by a suffix: anden, andon (instead of expected ${ }^{\text {Fanen }}$ and ${ }^{\left(z_{\text {anon }}\right)}$.

### 3.3.3 Personal prefixes

Many substantives and some other words in Yali are found with prefixes which relate them to one of the grammatical persons mentioned in the preceding section. Since the relationships meant in this category can be of a different nature - and are by no means always of possession in the narrower sense of the word - I prefex to use the term "personal prefixes" for the morphemes which formally characterize the category (79). The following words give an illustration of the prefixes involved:

```
nune :"my voice" napma : "below me"
hune : ryour sg, voice" hapma : "below you sg."
une :"his etc. voice" apma : "below him"
ninune:"our voice" ninapma: "below us"
hinune:"your pl. voice" hinapma: "below you pl".
inune : "their vojce" inapma : "below them"
```

The personal prefixes, thus, are found to be the following:

| $\begin{aligned} & \underline{n} \\ & \underline{h} \end{aligned}$ | : | " | " | " | " | " | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| zero | : | " | " | " | n | " | 3 |
| nin | : | " | " | " | " | " | 1 |
| hin | : | " | " | " | " | " | 2 |
| in | : | " | " | " | " | " |  |

The prefixes can be further analyzed as containing a person morpheme and a number morpheme. The person morphemes are identical with those desoribed in the preceding section:

```
    n}\mathrm{ : for 1 p
    h : for 2 p
zero : for 3 p
```

The number morphemes, which follow the person morphemes are:

```
zero : for singular
```

    in : for plural
    This analysis is in agreement with that for Dani as given by Van der Stap (80).

We have to note, however, that the personal prefixes as described are found only with words whose basic morpheme has initial vowel. If the personal prefixes precede a basic morpheme which has a consonant initially, allomorphs show up. The first series of allomorphs of the personal prefixes is found in those cases where the basic morpheme to be marked has initially
 ference between these allomorphs and those already mentioned consists of an additional vowel. Apart from being part and parcel of Yali morphology and therefore worthwhile to be included in the description of the categrory of the personal prefixes, these allomorphs provide us with good examples of vowel dissimilation in Yali, and should not be oritted because of the general character of the phenomenon, as was done by Van der Stap for a comparable phenomenon in Dani (81).
If personal prefixes precede basic morphemes which have initially one of the consonants mentioned above, the following series is found:


In this formulas, $V$ stands for the vowel shown by the allomorphs. The nature of this vowel is dependent on the vowel in the first syllable of the basic morpheme marked. The following rules can be given (82):
a. If the vowel in the first syllable is $\underline{e}$, $\underline{i}$, $\underline{\underline{V}}$ or $\underline{u}, \underline{V}$ is $\underline{a}$.
b. If the vowel in the first syllable is $a, V$ is either o (preceding bilabial consonants $\underline{f}, \underline{m}$ or $\underline{w}$ ), or $\underline{e}$ (preceding the other consonants).
The following examples (all marked for a relationship with 1 ps ) illustrate these rules.


The same series of personal prefix allomorphs is found if the prefixes precede a basic morpheme, which has initially one of the stops b, d, $k$, or g. However these stops are prenasalized, if following the prefixes. Strictly speaking, the nasals found are not part of the prefixes, but can be interpreted as revealing phonetic qualities of the underlying stop series, which are latent when the stops occur word initially. Apart from the historical implications of the prenasalisation, we have to account for this phenomenon in morphology, because, except for its proper occurrence, it is a striking formal feature.

The following formulas symbolize the personal prefix allomorphs if preceding one of the mentioned stops.

In these formulas ${ }_{-}^{n}$ stands for the prenasalisation of the following stop; this process of prenasalisation results in the phonemes $\underline{m b}$, nd or ngg, which are found instead of the expected stops $\underline{b}$, $d$ or $\mathrm{k} / \mathrm{m}$.
The nature of $V$ in the formula is given according to the same rules, as defined above. The following examples illustrate the occurrence of personal prefixes preceding prenasalized stops (as in the above examples the words below are marked for relationship with 1 ps).

|  | nanggean |  |  |  |  |  | kean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | nambinggon | , | 11 | " | 1 | " | binggon |
|  | nangEimbu | , | " | 1 | " | * | kimbu |
|  | nandog | , | " | 1 | " | 11 | dog |
|  | nambohsum | , | " | " | " | " | bohsum |
|  | nangguresi | , | " | " | " | " | kuresi |
| b. | nenggarog | , | " | " | " | " | garog |
| and | nombak | , | " | " | " | " | bak |
|  | nombaharik | , |  |  | " | " | baharik |
| also | nongganangge |  | " | " |  | 1 | kanangge |
| ( | nonggalem | , |  |  |  | 1 | kalem |

We meet another series of personal prefix allomorphs in Yali, which contain ah following the morphemes mentioned in the beginning of this chapter. This series is non-productive; present investigation can only state the occurrence of this series with generally short basic morphemes, most of which have a vowel initially; they are mentioned below.
While the formal feature marking this series of the personal prefix category is clear, it is hardly possible to sift out a semantical
extra in addition to the implications of the other series in this category; the restriction of its occurrence to a few unpredictable cases does not admit speculations as to the semantical implications connected with ah. Anticipating the description of some verbal categories, I can mention that ah shows up there also, but that fact does not explain this series of personal prefixes either (84). The following series of personal prefixes showing ah, is found:

| nah_ | for a relationship with | 1 ps |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| hah | $"$ | $"$ | $"$ | $"$ | 2 ps |
| ah | $"$ | $"$ | $"$ | $"$ | 3 ps |
| ninah | $"$ | $"$ | $"$ | $"$ | 1 pp |
| hinah | $"$ | $"$ | $"$ | $"$ | 2 pp |
| inah | $"$ | $"$ | $"$ | $"$ | 3 pp |

Members of the category having this series of prefixes are shown here: (marked for relationship with 1 ps )


The words orom and wam have blockading forms in this category; marked for a relationship with 3 ps they are aharom and angem. To mark relationships with other persons the $z$ person and number morphemes mentioned in the first series are prefixed to respectively aharom and anggom.

As said in the beginning of this chapter, the category of the personal prefixes is characterized semantically by the information that there exists a relationship between something meant by the word showing the prefix and a person. The following kinds of relationships can be distinguished:

1. The thing, meant by the underlying word, belongs to or is a property of the person indicated; the following members of the category illustrate this type of relationship:
nombak: "my rat"
eyabuk: "his garden"
inahel: "their sugar-cane"
hinune: "your pl. voice"
2. The thing, meant by the underlying word, is part of the body of the person marked:
nini ${ }^{n}$ ruk : Nour hair"
hesangge: "your ear"
inahum : "their belly"
ningeik : "my arm"
3. The person indicated has a social relationship with or is a member of the institution meant by the underlying word:
ninunggulowag: "our clan'(also meaning tour head')
inomin : "their friend"
hinisina : "your pl. mother"
4. The person indicated is in the location meant by the underlying word:
inambeg : "where they are"
nombolim: "behind me"
hobene : "upon you sg."
ninobil : "towards us"
hinapma : "below you pl:"
5. The emotion or attitude, meant by the underlying word is a quality of the person indicated:
inakol : "their fear"
nitog : "my custom"
hinambit : "your pl. dislike"
henggali : "your sing. shame"
ninenggal: "our deceitfulness"
6. The activity meant by the underlying word is addressed to the person indicated:

$$
\begin{aligned}
& \text { nayonggo : "the-call-for-help-addressed-to-me" } \\
& \text { hobando : "your being-laughed-at" } \\
& \text { ninahinog: "the questioning-addressed-to-us" } \\
& \text { inobok : "the lamentation-addressed-to-them(i.e. the dead)" }
\end{aligned}
$$

### 3.3.3.1 Comparison

Comparison of the personal prefixes in Yali with those described as possesive prefixes in Dani (85), shows only a few differences between the morphemes in both languages. The first series is found in Dani as well as in Yali; the second series also, although I repeat that $V$ is $\underline{a}^{2}$ in Dani in all cases. The third series understandably is not found in Mugogo Dani, since prenasalised stops do not occur in its phonemic pattern. The Dani category, described as "postpositionswith prefixes" (86), has the same formal characteristics as the other categories; hence I incorporate it in the above description (sub 4). A distinction between these and other words showing the personal prefixes can be made only on account of the lexical meaning and syntactical status of the basic morphemes; speaking in terms of morphology such a distinction is irrelevant (87).

The fourth series of personal prefixes, those showing ah, is found in Dani as well, in such a measure that Van der Stap feels entitled to consider the words with ak as first syllable not as a distinct series of words with "possesive prefixes", but probably as a special category of substantives, i.e. "substantives for inalienable relations" (88). Although this idea is interesting, comparative research does notcorroborate it.

As I have demonstrated above, ah in Yali must be considered to be a part of the personal prefix; it definitely is not part of the basic morpheme. Moreover, Yali cognates for the special group of words put forward in Dani as "the substantives for inalienable relations", in many cases do not show up as comprising ah in their basic morpheme (89):
akot , "his younger sibling" (D), ot , "his younger sibling" (Y)
akosa, "his mother" (D) , isina , "his mother" (Y)
Some words having ah are analysable in Yali as just normal cases of basic morpheme with personal prefix:

$$
\begin{aligned}
& \text { akun, "her husband" }(D) \text {, ahun, "her husband" }(Y) \text {, } \\
& \text { of . hun, "older man" (D and } Y \text { ) } \\
& \text { ake "his wife" }(D) \text {, uhe, "his wife" }(Y), \\
& \text { of . he, "woman" (D and } Y)
\end{aligned}
$$

Some other words which have homophonous forms meaning something spiritual , are not found with homophone counterparts in Yali:

$$
\begin{aligned}
& \text { nakot (D): "my younger sibling" } \\
& \text { "my wits" } \\
& \text { cf. Yali } \\
& \text { not "my younger sibling" } \\
& \text { nahut : "my wits" }
\end{aligned}
$$

Concluding, we find that the existence of the Dani category of substantives having ak as the formal characterizing feature seems to become more doubtful even than Van der Stap suggested (91); comparison with Yali data does not support the idea that "categorical forces are at work" in the forms having ak. At least for Yali - and probably also for Dani - the words showing ak as part of the basic morpheme can at hest be consigned to the lexicon (92).

### 3.3.4 Tbe adiunctive suffix

Very frequently words in Yali are found which show the element on as their final - and as such stress-bearing - syllables. All of them are members of a category which is formally characterized by the element on, occurring as an affix to some basic morpheme. The word marked with on, or the syntactically related word group the last member of which is marked with on, figures as an attribute; its meaning is connected with an implied or explicitely mentioned subject. For some cases the choice of the term "relative pronoun" for the morpheme on is attractive, but I will not use the term here, since its conventional meaning does not cover on's use in Yali.
The basic morphemes followed by on in this category correspond with words which do not belong to only one word-class; they are
adjectives and verb forms, but also personal pronouns, nouns, deictic words and postpositions are found as corresponding words. The following words and groups of words illustrate this phenomenon:
dom suon, "a big mountain" (su, "big")
it wim suruk atuson, "they who made war" (corresponding word group: wim suruk atusa, "they made war'(93))
ap inominion, "men, who are their friends" (corresponding word: omin, "friend", 3 pp personai prefix in, plural suffix i)
ap hiryon,"man, who belongs to your pI . group" (corresponding word: hit," 2 pp personal pronoun")
inune yion dion, "their languages from everywhere" (corresponding words: yi and di, deictic words which in combination indicate the general occurrence of some phenomenon)
it ap napmon," my subjects", "they who are below me" (corresponding word apma, "below", with 1 ps personal prefix)

Adverbs are never found as corresponding with the basic morpheme of a word marked with on.

### 3.3.4.1 Comparison

Comparison of Yali and Dani data brings out some interesting similarities. To start with, we find "the category of the dek forms" mentioned which implies that the person or thing to which a member of the category is applied "shares to some extend the quality inherent to the root-morpheme"; the forms marked with dek "belong to the word-class of the qualifiers" (94). I conclude that there is an implied semantic correspondence between this category and the one mentioned above for Yali.
However, we meet another category in Dani, showing an element dek again as formal feature, but seemingly with different semantic characteristics: "the persons or things designated by the resultant form belong to a certain group, the members of which all share the quality which is indicated by the root-morpheme".
On first sight this category seems hardly to be different from the preceding one, but we are informed also that "the resultant forms
belong to the word-class of the substantives" (95); that fact seems to be the major reason for calling these words the "category of the collective nouns".
On comparative grounds I suppose that the line between the two categories in Dani each characterized by a morpheme dek is drawn too sharp; especially the classification of the resultant forms - i.e. a substantive with dek belongs to the word-class of the qualifiers, and a qualifier with dek belongs to the word-class of the substantives - is faulty, in my opinion, since it does not account for the syntactical possibilities of the Dani language.
It is a pity that Van der Stap did not give some instances of words marked by dek in their syntactical position within the sentence; probably this would have cleared the situation. For, as the adjective modla "light-coloured", can occur independently - e.g. namodia, "my light-coloured thing" - the "collective noun" gokdek is found as an attribute, e.g. ap_gokdek, "big men" (96).
My conclusion is that in both Yali and Dani the category of adjunctive suffix is found; its formal characteristic is the morpheme on, or dek, following the basic morpheme. The attribution of the lexical meaning of the word (group) marked to an implied or explicitely mentioned subject is the central meaning of the category (97). In both languages morphemes identical with the above mentioned ones show up also in verb forms; I will devote a separate section to that topic, however (98).
Although the meanings of the categories mentioned are similar in Yali and Dani, formal features marking the categories in each of the languages are not identical. There may have been more uniformity in the past, however. This seems to be suggested by the existence of clitics which in ${ }^{3}$ icate that the meaning of the cliticized word is applicable to some subject. In some cases words showing the adjunctive suffix can alternate with words followed by the clitic. One could suppose that the adjunctive suffix is a later specialization of a former ascriptive word which has also yielded the mentioned clitic. Presently the clitics are the following: W.Dani : mendek

Mugogo Dani: mege
Yali : angge

There is more formal corresponce between these clitics than between the adjunctive suffixes described. The hypothesis of their historical identity is also supported by this correspondence (99).

### 3.3.5 Multi-purpose suffixes

In Yali several suffixes are found, the primary meaning of which is an indication of position or direction. Since they can serve more than one purpose semantically, and sometimes mark a syntactical valence, I have chosen the term "multi-purpose suffixes".
3.3.5.1 $=$ The

This suffix is found in those cases where the positional aspect of the basic morpheme is accentuated. Following a basic morpheme which has in its last syllable one of the vowels $\underline{a}$, $\underline{e}$ or $\underline{o}$, the suffix ma is found generally; if the last syllable of the preceding basic morpheme is $\dot{i}$, or $\underline{u}$, the allomorph $\underline{\underline{m} u}$ is found in most cases; $I$ did not discover rules which govern the few exceptions to this general pattern. The following words illustrate the use of the suffix as indicator of position:

```
aloma : "on the hill", of . alo "hill"
bulmu_ : "in the midst", cf. bul "centre"
enggama :"in the forest", of. engga "leaf"
ik ayehma: "on the shore/bank', cf . ik "water"; ayeg "tooth'
```

Locative adjuncts such as the above mentioned can be considered to constitute a minor sub-clause within a sentence; the basic morpheme is then the subject of this sub-clause (100). A word such as aloma can consequently be translated more correctly: "place where the hill is".
Generally, indication of direction is not part of the meaning of $\underline{\mathrm{mu}} / \underline{\mathrm{ma}}$. Where it seems to be suggested, direction is incorporated in the meaning of other words in the sentence:
eyabukmu laha, "he went to his garden", i.e. he-went-to the-place-where-his-gardenwork-is.

As for the classes of words consisting of basic morphemes suffixed by 프늘 not only are nouns found, but also deictic words, adjectives adverbs and verbs. Especially with the latter word-classes, the mean-
ing of $\mathrm{mu} / \mathrm{ma}$ can shift from the indication of position to the indication of time. This use of the same suffixes for indication of both tine and position is an interesting phenomenon l01). The following word-groups illustrate the occurrence of mu/ma with this meaning. nit dotma (we small at-the-time) "when we were little children". at ebe awan waharuk elehma (he his-body nearly to-come not-at-the time), "when he had not yet come!

ㅇ faltuk awanma (house to-build nearly-at-the-time), "when the house was nearly built".

When mu/ma is found as the suffix of a verb form, the aspects of both position and time are present, although the latter is accentuated. As can be inferred from the remark on the sub-clause character of locative adjuncts marked by $\mathrm{mu} / \mathrm{ma}$, the subject of a verb form marked by this same suffix in Yali is other than the subject of a following verb form in the sentence. In this respect forms marked by mu/ 프 are contrastive with others indicating that the same subject follows 102).
The following part of a sentence illustrates the use of mu/ma, if occurring as the suffix of a verb form:
(Nohorukmu), ilikia wim yonggo ebahma, o Worloga laruk sowareg, ...

Both Nohorukmu and ebahma indicate a change of subject; sowareg, however, indicates that the same subject will follow. The translation of the above part of a sentence is: (when we were sleeping there), early in the morning, after they had called for war, we went to the place Worloga,...". Understandably, more could be said about the syntactical valence of the mu/ma suffix and its semantical differentiation, both of which depend partly on its position within the sentence. Since our primary concern is morphology, however, I refer to Appendix III for more examples of this suffix.

## 

The suffix en is found as the indicator of direction. Especially if a word marked by en occurs in a sentence which includes a verb of motion, the directional meaning of en is clear; it indicates that the place meant by its basic morpheme is the point from where an action starts:

Landikmen waha ( ${ }^{\text {Landi-ik-ma-en waha) }): ~ " h e ~ c a m e ~ f r o m ~ t h e ~ a r e a ~}$
of the Landi river" (Landi-river-place-where-
from he-came)
The suffix en is also found in cases where the distance implied in the indication of direction is not one of the place, but of time; "past" and "future" apparently are spoken of as being remote from "now". Even when there is no implication of spatial direction towards a speaker, i.e. when a speaker is in the place spoken about, the suffix en will be used to refer to places where in the past something was done or in the future something will be done:

Abenahoen sebahon: "what they did in Abenaho"
boholmen sukfuhangga suhup: "they shall perform miracles in the sky"

The indication of time distance as part of the meaning of en is demonstrated even more clearly if i.t is the suffix of a basic morpheme which lexically denotes temporality:
fobiken_wahup: "later on they shall take" (cr. fobik, "later"). The suffix en not only indicates a directional and temporal "from", but also a causal "from". In this sense it informs that the person or thing meant in its basic morpheme is the explicitely mentioned originator of an action:
ap Dule aben orom og-nepag: "the men of Dule gave me sweet potatoes'(men Dule men-from sweetpotatoes give -to-me-they-did)
nit doronen nininggiken sin eleg: "we small kids, our hands did not do it'. (we little-whofrom our-hands-from do not)
at dohseren fano sirisi: "the doctor cured him". (he doctor-from good he-made)

The remark made on the syntactical valence of the $\mathrm{mu} / \mathrm{ma}$ suffix can be repeated in respect to the suffix en; but going further into this aubject would lead us too far from morphology 104).
3.3 .5 .3 The temporal suffix im/am

The suffix im/am is found in Yali, but not very often. Its meaning is related to the temporal aspect of $\mathrm{mu} / \mathrm{ma}$.

Examples:
> o misihim (o "day", misig "one") "on one day", "on the first day"
> O_birenam (biren "two") "on two days", "on the second day"
> inggik henahanam (inggik "hand", "finger" (used for counting))
"on the third day", "the third time"
> anggoloam (anggolo"many")"many times"

We find that except for the case of misihim always the variant am is shown if this suffix follows a basic morpheme which is not a verb. If the basic morpheme is a verb, im is found, As a suffix of either a durative stem (cf. section 5.9) or a gerund (cf. section 5.2) it closes a sub-clause, the meaning of which is contradictory to to the meaning of the main clause:

## nit yabuk sumukim-at hat kexoho ulug wahen

(fwe garden to-do (dur.) you how thinking you-2-ps-came)
"Why did you come, since you know we were going to work in the garden? ${ }^{4}$
an nune
(I my-voice to say (gerund) to-leave-Ididwit)
"I stopped, although I was planning to speak!'

| osiren uma kukim | sohorep-fisalug |
| :--- | :--- | :--- |
| (rain-from house to-enter (gerund) to-leave perf. participle) |  |
| wahimu | osit ninenggek |
| (I-came-after rain it-ate-first-person-object |  |

"The rain caught me when I came without shelter, although
I should have gone into the house because of the rain!

## 

In Yali two suffixes are found, mu/ma and en, indicating spatial and temporal, and directional, temporal or causal arrangement respectively. Although not mentioned by Van der Stap as such, comparable suffixes are found in Dani also, even in the scanty material that is available:
egymo: "in his hand", of e egy "hand" 105)
khoma: "where?" cf. Yali kema"where?", ke "what?"106)
negimo: "in my hand"107)
opulukmo:"on his proper place"108)
Some examples of molma occurring as a suffix of verb forms:
natdlykyma: "since $I$ have lost" 109 )
ap_watlakama: "when a man has died" (110)
hedv lekma: "when there is no fire" (111)
momok-lakama: "it got pulverized" (112)
lek akama: "it was not there" (113)
gikhemo: "where/since it has penetrated", of. gikhe, "it penetrated" (114)

The conclusion seems to be warranted that in Dani a multi-purpose suffix indicating spatial and temporal arrangement is also found. As to the occurrence of the suffix following verb forms, Bromley speaks of the "event setting" marker ma/mo (115).
The suffix en, indicating "direction" in a spatial, temporal or causal sense is found many times in Dani; its allomarph nen is found where the preceding basic morpheme has a final vowel:

```
helep-en: "by a stone" (116)
    hegy-nen: "with your hand" (117)
    watok-en: "because I desire" (118)
    anen: "by me" (119)
    haten: "by you" (120)
    aten: "by him"(121)
    nouphasenen: "by my father", of . ouphase "father"
```

To indicate a temporal or causal relationship between two actions, en is very often found as suffix of verb forms, both in examples of

Dani sentences given by Van der Stap (123) and in the specimen of Dani text given by Bromley (124). It seems, however, that en/nen in some instances in Dani is a non-stress-bearing clitic; in these cases it would be an extra-categorical item, the exact meaning of which should be revealed by further research (125). As far as comparative morphology concerns, however, the categorical character of en as a suffix marking directional arrangement in a broad sense in both Dani and Yali seem to be fairly well established. As far as I could check, Mugogo Dani does not have a suffix comparable with Yali im/am.

### 3.3.6 Nominal morphology in retrospect $===$

Not much credit seems to be gained by comparing nominal morphological systems of New-Guinean and West--Irianese languages. While comparing characteristics of Australian New Guinea Highlands languages, Wurm uses for comparison features, only four of which come from the sphere of nominal morphology (126). In the comparison of Dani and Yali we meet the same phenomenon: "Whereas the morphological system of the verb is... rather elaborate, outside that system the Dani language offers comparatively few phenomenona which are interesting from a morphological point of view" (127). The same is true for Yali also, as the preceding pages illustrate. Nevertheless, the following nominal categories were distinguished in both Dani and Yali; the formal and semantic features characterizing these categories are identical in both languages:
personal pronouns
personal prefixes
multi-purpose suffixes.
In both languages we find the category of adjunctive suffixes; the morphemes involved, however, were found to be not the same at the present time. Not found in Yali were the categories of "comparative form" and "distributive numerals" (128). As for the "marginal phenomena of word-formation", some analoguous procedures can be found in Yali also. However, the data pointing to such processes as reduplication and sound-variation, are very rarely found and sometimes of idiolectical interest only. Presently they belong to the sphere of the lexicon (129).
4. The verb: actor-categories of simple verbs

### 4.1 General remarks

The morphological system of the verb in Yali is an elaborate one. In the present part of this study I will confine myself to those categories which show as part of their meaning the characteristic of actor-indication. Linking up with the features found in section 3.3.2, the actor-indication in verbs comprises information concerning person, - i.e. first, second of third person - , and number, - i.e. singular or plural - , of the actor. The present part will also be restricted to the description of categories which have simple verbs as their members. Simple verbs are distinct from compound and composite verbs by the fact that they show only one root. When referring to verb forms in a general sense, I will mention their roots, since the root is the formal feature common to all members of a morphological set. Although a verb root with zero morpheme is found in only a few cases, I choose it as the item of reference for verbs, rather than taking members of one or another category for that purpose (130).

### 4.2. Verb classes

The term "verb class" is used in Yali morphology in a somewhat different way from its use in the description of languages in general. Grouping verbs into classes will be proven to be valuable since it makes the description of many categories more intelligible and shorter. The criterion to distinguish verb classes from one another is the final phoneme of the verb root. From the differences in root finals, the most important of which is the difference between vowels and consonants, differences in the morphological make-up of forms can result, which are semantically members of the same category.
The following verb-classes and groups of verbs, which cannot be grouped into one of the other classes because of peculiar irragularities of their forms in some categories, can be distinguished in Yali:

| Class II | : | " | " | \# | " | $\underline{\square}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Class III | : | " | " | " | " | p |
| Class IV | : | " | 11 | " | " | $t$ |
| Class V | : | " | " | " | 11 | V |
| Class VI | : |  | " | " |  |  |

The other groups :
Class VII : " " " finals hV
Class VIII: " " alternating roots: la, waha, na, welat/
at (131)

### 4.2.1 Remack and examples

No comment is needed on the four consonant root final verb classes, since differences between their forms within one category will become clear in the description of those categories; the verbs welat and at, however, although normally members of class IV, are classified with class VIII, since besides other irregularities their at root endings in some cases alternate with a. Of the vowel root final verbs, two classes can be distinguished: those with a root final $V$, which is not $\underline{a}$, and those with root final a. From both classes the $v$ erbs showing polysyllabic roots with h preceding the root final vowel are grouped in class VII (i.e. ha is a member of class VI).

Class VIII, finally, has as its members the two $t$ root final verbs mentioned above and the three other verbs la, waha and na, which show alternating roots in some categories.

In the following lines some examples of members of the different verb classes are given:

Class $I$ : bal, del, fil, damel, dindil
Class II : menen, dahan
Class III: kolap, belap, wilip, lahap
Class IV : wat, endet, hundut, wit
Class $V$ : $\underline{-} V, \underline{b V}, k V, ~ a m b V, V m b V ~(131 a)$
Class VI : wa, ha, hola
Class VII: laha, imihi, lehe, noho.

### 4.2.2 Comparison $=$

The term "verb class" is not used by Van der Stap; its idea does not seem to be present either. However, in his morphological des. cription, distinctions are made between the first, secondary, tertiary and pseudo-tertiary categories of morphological features. There is some terminological confusion observable here, among other reasons due to the fact that Van der Stap's description of the "normal" categories centers upon verbs which have consonant final roots, while leaving out of consideration verbs which have vowel final roots. The latter ones enter the description only if they are the second component of compound verbs - not recognized as such, however, because of the neglect of the primary accent occurring word medially -, and then produce the assumed secondary etc. categories. (132).
In the next chapter I will argue that the grouping of verbs in classes is as useful for Dani as it is for Yali. The main point of distinction between the classes is the root final phoneme, i.e. they can be distinguished on the basis of the same principle applied in the description of Yali. Although the term verb class is not used by Bromley, it is clear from the paradigmata given at the end of his book, that the principle of grouping verbs according to their root finals holds very well for Dani also (133).

In the following chapters the seven tense or mode categories in Yali which show suffixes containing both a tense/mode marker and an actor marker will be described. Although these suffixes sometimes seem to be portmanteau's marking tense/mode and actor, without offering the possibility of analyzing them further into separate elements, it will become clear that at least in the majority of the seven categories a comparison with Dani data yields sufficient reasons to distinghuish actor morphemes which show up in these categories.

My first purpose in the following chapters, however, will be the description of tense/mode categories, while for the time being leaving possible actor categories present in them out of the discussion.

In section 4.3.9 I will come back to the actor morphemes. As illustrations of the tense and mode categories, their forms for each of the verb classes mentioned above will be given, as well for each of the six actors. These actors are:
first person singular (1ps)
second person singular (2 ps)
third person singular (3 ps)
first person plural (1 pp)
second person plural (2 pp)
third person plural (3 pp).
The tense and mode categories to be discussed are the following:
first past tense
second past tense
third past tense
first future tense
second future tense
irrealis
hortative, immediate and deferred.

The forms given in the following paradigmata are members of the category of the first past tense, which is semantically characterized by the information that the action meant in the verb root took place in today's past.

| Class I | Class II | Class III | Class IV |
| :--- | :--- | :--- | :--- |
| root: del | root: menen | root: kolap | root: yat |
| delihi | menenihi | kolabihi | yarihi |
| delehen | menenehen | kolabehen | yarehen |
| delehek | menenehek | kolabehek | yarehek |
| delehe | menenele | kolabehe | yarehe |
| delehep | menenehep | kolabehep | yarehep |
| delehesa | menenehesa | kolabehesa | yarehesa |

```
Class V
root sV
sihi
sehen
sehek
sehe
sehep
sehesa
```

| Class VI | Class VII | Class V |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| root: wa | root: laha | root: 1 | wah | -at | na |
| wihi | lahaki | lani | wahi | ahi | ning ${ }^{\text {di }}$ |
| wehen | lahaken | lahen | wahen | fhen | nengeren |
| wehek | lahakek | laha | waha | aha | nenggek |
| wehe | lahake | lahe | wahe | ahe | nengge |
| wehep | lahakep | lahep | wahep | ahep | nenggep |
| wehesa | lahakesa | lahesa | wahesa | ahesa | nengeesa |

The common element to all the verb classes is tense marker Vh , which follows the verb root and precedes the actor marker ; $\underline{V}$ in this formula stands for a vowel, which is either $\underline{\underline{i}}$ or $\underline{e}$, harmonizing with the vowel, found in the following syllable. In the verb classes which have a vowel as root final phoneme, the $\underline{V}$ of the morpheme is found in place of the root final vowel.

Class VII shows tense allomorph $k$. The presence of phoneme $\underline{h}$ in the last syllable of the verb root is probably the reason for the occurrence of this allomorph (134).
In class VIII the verbs waha and at have allomorph roots wa and a in this category. They and the root la are followed by tense allomorph $\underline{h}$, without vowel $\underline{V}$, as is the case with class VII . An exceptional position is taken in by the verb na in this category. It shows allomorph root $n$ Vn, followed by tense allomorph $\underline{k}$. The vowel in $n V n$ harmonizes with the vowel found in the actor marker following the tense morpheme. There might be a historical explanation for the irregular forms of na in the first past tense category - Dani dialects
also have na deviating from the normal pattern in a comparable category (135) - ; presently this irregularity has at least the result that the forms of na are not homophonous with those of the verb nV in this categrory (136).

Concluding, we find as the formal feature marking the first past tense category in Yali the tense morpheme Vh, with allomorphs $k$ and $\underline{k}$.

### 4.3.1.1 Comparisison

As far as formal features are concerned, we find a remarkable similarity betweem the Yali fixst past tense and the Dani near past tense, as described by Van der Stap. He finds the "tense-morpheme $\underline{h}$ " which follows the root-morpheme and precedes the actor-morpheme; the category of the Dani past tense is semantically characterized by the "information that the action was performed in the recent past" (137). We have to realize that the description of this "primary" near past tense category applies only to regular verbs which have a consonant final root, e.g. hymat, jokot, wakan, wetat.

The evidence of this last remark becomes more clear when we find also the "secondary", "tertiary" and "pseudo-tertiary" categories of thepast tense mentioned by Van der Stap (138). I agree with his analysis of the "secondary near past tense morpheme" as $V^{h} k$, "in which $V^{h}$ stands for a vowel harmonizing with the vowel of the actor morpheme" (139). The remark that this "tense morpheme" follows a "voice morpheme" - and thus is found mainly with compound verbs - is misleading, however, since forms of primary verbs are found as well with this tense morpheme, but without the voice morpheme which would make them members of the "secondary past tense category" (139a). Van der Stap's analysis of the "pseudo-tertiary near past tense category", based on that of the tertiary category, because they have the "same formal equipment as the tertiary categories" (140), calls for some more investigation, however. Along the same lines of his description of these "tertiary categories", to which I will come back later, Van der Stap finds the root-morphemes of socalled "existential verbs" to be different from their normal
shape when they occur with "pseudo-tertiary categories":

```
e.g. was, replacing wes of verb wesin
```



In the pseudo-tertiary near past tense category, however, forms such as wahy, lahy, waka (142) are found. To account for the phoneme $\mathrm{h} / \underline{k}$ in these forms, we probably have to bear in mind the so-called "appropriate shape" which was mentioned by Van der Stap as a prerequisite for the affixing of actor morphemes to the "voice morpheme" (143). This would mean that in the case of the pseudo-tertiary near past tense category, the tense morpheme simply is absent (or zero ?).
However, comparison with Yali data offers the possibility of an alternative analysis, by referring to the existence of allomorph roots for a group of verbs which includes as its members the socalled "existential verbs" (144). These roots are for e.g. the above mentioned verbs wesin and lan resp. wa and la. The near past marker in e.g. the forms wahy, lahy and waka is then retained as being $h / \underline{k}$ or only $\underline{k}$ (145).
Understandably, also Van der Stap's "tertiary near past tense category" is open to a reanalysis in the way as described here. Van der Stap mentions that members of that category are characterized "formally by root morpheme, followed by voice-morpheme las in its appropriate shape, followed by the actor morphemes ..." (146). As indicated, he assumes that lah in e.g. watlahy and hymatlahy, and lak in e.g. watlaken and hymatlaken are corresponding with "a voice-morpheme las in its appropiate shape", instead of considering only la as the second verb root of these forms which are members of the category of medial voice compounds (cf. section 6.3). By this procedure he rules out the possibility of discovering any tense-morpheme in the formal make-up of members of his "tertiary near past tense category"; in view of the marking of tense in Dani in general this absence of the tense-morpheme is highly improbable. Comparison with the above mentioned Dani data and Yali data yields a better analysis, in which $\underline{h}$, (and $\underline{k}$ ) is considered to be the near past tense morpheme. The following segmentation is the result of such analysis:

D watlahy (= wat-lahy)"I die"; wat root, la sec.root, $\underline{h}$ tense morpheme, $\underline{y}$ actor morph. cf. D lahy"I come", la root, h tense morpheme, $\underline{\underline{y}}$ actor morph. The corresponding Yali forms are war-ahi and lahi. Although Bromley's interest is not primarily in morphology, his remarks on the subject underline fully the reanalysis that I gave of the Dani near past tense. His nomenclature is not the same as Van der Stap's, but this does not veil the fact that his "simple factive category" is the same as Van der Stap's near past tense. He brings forward the "factive mode marker" $\underline{h}$, which has $\underline{k}$ as an allomorph besides it (147). Very instmuctive is the paradigma 'of simple factive forms, where not only forms of verbs with consonant final roots are given (i.e. Van der Stap's primary category), but also those of the vowel final roots, which we recognise to be formed in the same way as members of Van der Stap's "secondary category". We find , along with those forms, among others, which are conjugated as this "secondary category", also forms of verbs which have roots ha, hela, pi, ki, í (cf. Yali cognates ha, hola, ambV, $\underline{k} \underline{V}, \underline{V}$ ). This contradicts the statement of Van der Stap, that his secondary category forms "never occur.... in object-less verbs, but always (save in a handful of verbs to be treated later) in the train of voice morphemes" (148).
Dani cognates of the Yali verbs of class VII have forms which show tense allomorph $\underline{k}$ following the verb root (149).
Members of the Yali class VIII have cognates in Dani which are irregular within the pattern of that language also: of. 1a, wa, a (D) cognate with allomorph roots la, wa and $\underset{\text { a ( }}{ }(\mathrm{Y})$. Bromley's analysis of their forms in the "simple factive" category is analoguous with my re-analysis above-given of the material labelled "(pseudo) tertiary" by Van der Stap (150).
Finally, as the verb na, class VIII, is a special case in Yali, such is the position of its cognate in Dani; it was given special treatment by Bromley, who analysed its allomorph root in Dani as $\mathfrak{n v k}$ (151).

On the basis of their morphological make-up in the near past/ simple factive category, a provisional classification of the verbs in Dani is given in the following diagram, together with Yali verb classes and the markers of the category:

|  | Iali <br> verbclass <br> marker of first <br> past tense | marker of near <br> past simple <br> factive |
| :--- | :--- | :--- |

Our conclusion can be that both Dani and Yaliremarkablyagree in the marking of this category.
Two remarks are to be made on the semantic feature which characterizes the category.

First, we must note the differences in the semantic implications consigned to their near past tense and simple factive categories by Van der Stap and Bromley respectively. While the first states that "the information that the action was performed in the recent past" is the main semantic characteristic of the category, "provided that the action is a "fact", not a process" (152), Bromley says: "Simple factive forms (refer) ... to events which are accomplished fact in the immediate or recent past", and: "the simple factive category is an unmarked category which may include reference to events in the distant as well in the recent past" (153).
Since the meanings of factive and past are not mutually exclusive semantically, it might be hard to decide which aspect is the more prominent in this categery.
Second, it is interesting to note that
the meaning of the category in Yali has been specialized in such a way that it implies the information that an action has been performed not in the near past in general, but in the past of today. Maybe this indicates that the temporal aspect of the category in Dani should be taken as at least as important as its implication of factivity.
4.3.2 Second past tense $=======$

The following forms are members of the second past tense category in Yali:

| Class I | Class II | Class III | Class IV |
| :--- | :--- | :--- | :--- |
| root del | root menen | root kolap | root yat |
| deltikik | menentikik | kolaptikik | yatikik |
| deltikin | menentikin | kolaptikin | yatikin |
| deltisi | menentisi | kolaptisi | yatisi |
| deltukuk | menentukuk | kolaptukuk | yatukuk |
| deltikip | menentikip | kolaptikip | yatikip |
| deltusa | menentusa | kolaptusa | yatusa |
| Class $V$ | Glass VI |  |  |
| root sV | root wa | class VII |  |
| sirikik | warikik | root laha |  |
| sirikin | warikin | laharikik |  |
| sirisi | warisi | laharikin |  |
| surukuk | warukuk | laharisi |  |
| sirikip | warikip | laharukuk |  |
| surusa | warisa | laharikip |  |

Class VIII

| root la | root waha | root na | root at |
| :--- | :--- | :--- | :--- |
| larikik | waharikik | narikik | atikik |
| larikin | waharikin | narikin | atikin |
| larisi | waharisi | narisi. | atisi |
| larukuk | waharukuk | narukuk | atukuk |
| larikip | waharikip | narikip | atikip |
| larusa | waharusa | narusa | atusa |

Following the roots and preceding the actor morphemes which will be discussed later, the common element in all these forms is tense morpheme /dVld, with allomorph / $\mathrm{dV} /$ if preceding 3 p actor morphemes (154). In the practical orthography as used above, the morpheme / $\mathrm{dVk} /$ shows up as tVk if it follows
roots which have a final consonant (in class IV and class VIII root $a t$, the $t$ has to be interpreted as a geminal cluster of root final $t$ and morpheme initial /d/), or as $\underline{\underline{I N K}}$ if it follows roots which have a final vowel.
All verb classes follow the same pattern in this category ; and no irregular forms of the classes VII and VIII have to be mentioned. In the above formulas , $\underline{V}$ stands for a vowel which harmonizes with the vowel of the following actor morpheme, except for the forms marked for 3 pp actor: in that case $V$ is $\underline{u}$.
The root final vowels of class $V$ verbs harmonize with the vowel in the following tense morpheme.
The category is characterized semantically by the information that an action was performed in a past, which is neither today's nor too remote. The exact border between the past, denoted in this category, and that denoted in the thixd past category, is hardiy definable. The time limit of the second past tense amounts generally up to at least several years.

### 4.3.2.1 Gemparison

A "remote past tense"category is mentioned for Dani which resembles the Yali second past tense in both formal and semantic respects. In the "normal" or "primary" remote past tense, the formal feature marking the category is tense morpheme $h V^{h} k$ if followed by 1 p and 2 p actor markers, and hikh/hukh if followed by 3 ps or 3 pp actor markers respectively. For reasons that I will mention in section 4.3.9, the final $h$ of the tense morpheme can better be considered part of an actor allomorph; in that case the formula hVk would do for all the tense morphemes (155). Yali and Dani markers for their resp. second past and remote past tenses differ consequently only in their initial consonants: / dVk/vs. hVk (156). However, Van der Stap leaves this trail of analysis in the description of his "secondary" and "(pseudo-)tertiary" categories. In the secondary remote past tense category he finds tense morphemes as $V^{h} k$
preceding 1 p and 2 p actor markers, and asikh or asukh, if preceding actor markers for resp. 3 ps and 3 pp (157).
This analysis is subject to objections, because it does not account for those verbs - not mentioned by Van der Stap -, which do not show a "voice morpheme" preceding the tense morpheme - as the secondary categories are supposed to do -, and retain their root final vowel in the remote past tense forms,e.g. verbs such as na, ha, he, i (158). Re-analysis of the forms of the Dani remote past tense gives a picw ture which is more consistent, and also accounts for vowel root final verbs, as mentioned above. Recalling the fact that the remote past tense morpheme in Dani consists of three phonemes, $\underline{h}-\underline{V}-\underline{k}$, I consider the $\mathfrak{\_}$ in the "morphemes" asVk etc. of Van der Stap's secondary category as a part of the verb root, as well as e.g. a, eㅡ and $i$ in the following remote past tense forms of single verbs (159): lakasiki (root laka) hesiki (root he) isiki (root i)

What remains, then, of the "morpheme" asVk, is SVk , to be considered an allomorph, found with vowel final roots in the remote past tense category (160). The tense morphemes marking the "(pseudo-)tertiary category" are analysed by Van der Stap as being not longer in this case, but even shorter than those marking the normal category: $V^{h_{k}}$ if preceding 1 p and 2 p actor markers, ikh and ukh if preceding markers of resp. 3 ps and 3 pp actor. To account for the phoneme h (or k)preceding these "tense morphemes" in the "tertiary" category of the remote past tense, the point of the "appropriate shape" of the "voice-morpheme" or the verb root final is raised again (161). For the analysis of a 1 ps remote past tense form such as e.g. wahyky, the analysis sould then be: root ${ }^{*}$ was in appropriate shape, tense morpheme Vk , actor morpheme y .
Such intricacy is not necessary, however. When we take for the "(pseudo-)tertiary category" the same allomorph root, as I proposed in the re-analysis of the Dani near past tense, the remote past tense morpheme for them is just the same as the one present in the "primary" or normal category: hVk (162).

My re-analysis of the Dani material as given here is in broad lines in accordance with Bromley's interpretation of the remote past tense category. He concludes in an even more straightforward way if seen from his point of view (163), that the remote past tense morpheme as found by Van der Stap is in fact a combination of factive marker $\underline{h}$ and remote past tense marker ik (which has allomorphs if preceding 3 p actor markers (164)). For reasons of comparative analysis, I would rather consider the remote past tense morpheme as one, i.e. including the "factive marker" $\underline{h}$ (165); the remote past tense morpheme in Dani, then, is hVk if following consonant final roots, with allomorph sVk if following most vowel final roots, and sometimes kVk, depending on the dialect, if following verb roots mentioned by Van der Stap in his "(pseudo-)tertiary category".
No allomorphs of the second past tense morpheme are found in Yali, but in Dani all omorphs show up in the remote past tense category. As can be seen in the following diagram, the classification of verbs in Dani as proposed in the preceding chapter is valuable again in the description of the remote past tense category:

| Yali |  | Dani |
| :---: | :---: | :---: |
|  | marker of second past tense | marker of remote past tense |
| All verb <br> classes |  | hVk consonart final roots (cf. primary category). |
|  | /dVk/ | sVk vowel final roots inciuding those with $\underline{k}$ preceding the final vowel including the verb ne (cf. secondary category). |
| allomorph | (/dV/) | $\frac{\mathrm{hVk}}{\mathrm{kVk}}$ Verb root allomorphs la, wa, ${ }^{\text {a }}$ (pseudo-)tertiary categories). |

The semantic characteristic of the remote past tense category in
Dani is the information that an action "took place in a remote and indefinite past" (166). This corresponds with the meaning of the Yali second past tense, although, as said, the past meant in the Yali category indicates, that the action was performed yesterday or before, seen from the vantage point of the speaker. The
indefiniteness of the remote past tense in Dani does not have its counterpart in Yali. Actions which took place or were performed in a very far and indefinite past are not referred to in Yali with the forms discussed above, but with those of the third past tense, to be described in the next section.
Thus, where Dani uses the remote past tense category "in narrating the exploits of the ancestors, old historical events, tribal traditions, myths etc." (167), in Yali one often finds third past tense forms used to describe such stories.

### 4.3.3 Third past.

The following forms are members of the third past tense category in Yali; since this category is only productive for forms which also are marked for 3 p , both singular and plural actor, I mention them first:

| Class I | Class II | Class III | Class IV | Class V | Class VI |
| :--- | :--- | :--- | :--- | :--- | :--- |
| root bal | root menen | root kolap | root yat | root sV | root wa |
| balfag | menenfag | kolapag | yapag | sebag | webag |
| Class VII | Class VIII |  |  |  |  |
| root laha | root la | root waha | root at | root na |  |
| lahabag | lebag | wapag | apag | nebag |  |

One feels inclined to consider the common element in these forms -fag-, as a portmanteau marking both third past tense and 3 p actor. However, by opposition of these forms with others marked for 1 p or 2 p actor, given below, we can analyse the element fag as containing an actor marker $f$ and the tense marker ag. In accordance with the rules followed in the practical orthography, $\underline{f}$ is found as $\underline{b}$ when occurring in intervocalic position; $p$ in the above form kolapag can be interpreted as a geminal cluster of root final /b/ and the actor morpheme; as to forms such as yapag and apag we have to assume that root final $\underline{t}$ has assimilated with the actor morpheme $\underset{f}{f}$ before producing the cluster p. Forms in the Angguruk dialect of Yali still show the unchanged root final and actor morpheme in the third past tense category: yatfag, atfag.

In classes V, IV and VIII roots ia and na, i.e. with all vowel final roots except those showing $h$ preceding the root final vowel, we find actor allomorph ef.
As said, the third past tense is a non-productive category if occurring with 1 p or 2 p actors. In fact, I recorded far past tense with each of the six actors in only three cases:

| root wa <br> (classVI) | root sV <br> (class $V$ ) | root at <br> (Class VIII) |
| :--- | :--- | :--- |
| weyag | seyag | aheyag |
| wenag | senag | ahenag |
| webag | sebag | apag |
| wowag | sowag | ahowag |
| webag | sebag | apag |
| webag | sebag | apag |

Evidently also in these forms the third past tense is characterized by the morpheme ag, following the actor morpheme, which follows the verb root. The class VI and V verbs wa and sV fit in with the pattern described above for those verbs. Class VIII verb at has an allomorph root ah if followed by markers for 1 p and 2 ps .
Exceptional in the third past tense forms in Yali is the fact that the tense morpheme is not in the first position behind the verb root, but in the second position following the actor morphemes. This phenomenon will be described in section 4.3.9. In all the other forms showing tense or mode and actor markers, the order is reversed, i.e. the actor marker follows the tense or mode marker, which follows the verb root.
The third past tense category in Yali is semantically characterized by the information that the action, meant in the verb root, was performed in a far past.
4.3.3.1 Comparison

I did not find forms in Dani which resemble the members of the Yali third past tense in their categoric unity of meaning and form (169).
4.3.4 First future.

The following forms are members of the first future tense category in Yali, which is semantically characterized by the information that the action meant in the verb root will be performed in today's future:

| Class I | Class II | Class III | Class IV | Class V |
| :--- | :--- | :--- | :--- | :--- |
| rootbal | root menen root kolap | root yat | root sV |  |
| balmin | menenmin | kolapmin | yapmin | simin |
| balmihin | menenmihin | kolapminin | yaprihin | simihin |
| balikon | menenikon | kolabikon | yarikon | sikon |
| baltul | menentul | kolabul | yabul | sul |
| baltihip | menentihip | kolaplihip | yatihip | silihip |
| balukon | menenukon | kolabukon | yabukon | sukon |

Class VI Class VII
root wa root laha
wamin lahamin
wamihin lahamihin
wikon lahikon
wul lahul
walihip lahalihip
wukon lahukon

Class VIII

| root la | root waha | root at | root na |
| :--- | :--- | :--- | :--- |
| lamin | wapmin | apmin | namin |
| lamihin | wapmihin | apmihin | namihin |
| likon | warikon | arikon | nikon |
| lul | wamul | amul | nul |
| lalihip | watlihip | atlihip | nalihip |
| lukon | wamukon | amukon | nukon |

The analysis of these forms cannot be as straightforward as was the case with the tense categories in the preceding sections. It seems even doubtful if present investigation can go any further than describing the suffixes found in the above forms as portmanteau's, marking both tense and actor, while leaving out of consideration the question of separating tense and actor markers.

Analysis of the above forms yields the following suffixes:


Some remarks must be made on peculiarities of several verb classes in this category: if following roots, which are members of verb classes I and II, i.e. those having one of the liquids $I$ or $m$ as root final consonant, the allomorph suffixes tul and tihip are found instead of ul and lihip (170).
Class IV verbs show up with a changed root final consonant, depending on the first phoneme of the suffix: if followed by suffix initial $\underline{\underline{m}}$ or $\underline{u}$, the root final is / $\underline{b} /$; preceding $\underline{m}$ the root final of comparable verbs of the Angguruk dialect does not show this partial assimilation: cf. yatmin.
The root final vowel of class $V$ in this category harmonizes with the vowel found in the suffix, except in those cases where the suffix has initially a vowel; then the root final vowel is replaced by the suffix initial vowel. The latter rule is also valid for verbs of class VI, class VII and the verbs 1 la and na of class VIII.All of these verbs retain their root final vowel a if followed by a suffix which has an initial consonant.

The elass VIII verbs waha, allomorph root wat in this category, and at follow the rules laid down for the other $t$ final verbs of class IV generally. Only if followed by a suffix which has initial u do they deviate from that pattern: preceding $u$ the root final vowel is not b, but ㅍ.

In some other Yali dialects, e.g. Angguruk and Landikma, the first future tense is marked with other suffixes for 3 p actor: misi, marking 3 ps actor, and lusa, marking 3 pp actor; instead of lusa allomorph usa is found if the suffix follows a root of the verb class I and III (171). These other suffixes suggest the possibility of analyzing the first future suffixes in such a way that a separate tense morpheme - being a liquid followed by $\underset{V}{ }$, followed by $h(172)$ - becomes discernable. Even then, however, the person markers in this category
constitute a real problem, which will be discussed in section 4.3.9. On the other hand, the first future tense suffixes for 3 p actor in the Abenaho dialect probably are due to contacts with Dani speaking areas: as will become clear in the next section (173).

### 4.3.4.1 Comparison.

The Abenaho dialect is the only one of the Yali language which has something to compare with Dani forms as far as the first future tense category concerns. Van der Stap describes two categories, named the "near future tense" and the "apophonic near future tense" (174). Since the morphemes formally characterizing both categories can be brought into one formula VkVn , and their form and meaning are strikingly similar, I suggest considering both categories as one; the V's in the formula stand for $\underline{i}$ if singular actor is meant, or $\underline{u}$ if plural actor is meant (175). The formula holds also for Van der Stap's "secondary category" of the near future tense, which is, I recall, the same category, but with forms of verbs showing a vowel final root, as its members - where $-\underline{\underline{k}-\underline{n}}$ is intercalated with vowels e-y (or e-ei) if singular actor is meant, and $\underline{v}-\underline{v}$ (or $\underline{o}-\underline{i}$ ) if plural actor is meant (176). Forms of verbs which in preceding sections were set aside as constituting the "(pseudo-)tertiary category" follow the pattern of the normal category in the near future tense (177). The analysis given above is in accordance with Bromley's (178). In his paradigma the verbs mentioned as members of the secondary category by Van der Stap are classified explicitly as having vowel final roots (179).

The near future tense suffix in Dani is comparable as a formal feature with the Yali suffixes which mark first future tense and 3 p actor. These, ikon and ukon, can be brought into the formula Vkon, where $\mathbb{V}$, similar to the V's in the formula for Dani, stands for if if singular actor is meant, or $u$ if plural actor is meant. This i-u opposition is, as noted, not uncommon (180). Apart from the formal resembla nce between $\underline{V k V n}$ and Vkon, however, we have to state the difference between the corresponding semantic features. Whereas in Dani the near future category is characterized by "the information that an action will be achieved.... in the near and definite future" (181) by either singular or plural actor,
the comparable suffixes in Yali denote that an action will be performed in today's future by 3 ps or 3 pp actor. One can assume the hypothesis that in historical times $V k V n$ was the proper near future suffix in Dani - of. the identical suffix in Western-Dani - whilst the Yali language had its own series of near future suffixes; Vkon in the Abenaho dialect can be considered as a loan-suffix, which in due time replaced the existing suffixes misi and lusa.
In section 4.3.9 I will come back to the question of whether segmentation of the Dani VkVn in tense and actor markers is possible and acceptable.
4.3.5 Second future

The following forms are members of the second future categrory in Yali:


The common element in these and other members of the second future tense category is the tense morpheme (u) hu; in this formula (ㅢ) stands for the vowel $\underline{u}$ which follows the verb root in all consonant final roots and replaces the root final $V$ in members of $c l a s s V$. In forms of verbs showing as root final(s) a or hV, - verb classVI, class VII and the a root final verbs la and na, - the verb root final is followed
by tense morpheme hu.
The class VIII verb waha has allomorph root wat in this category. This root and the other class VIII verb at and the class IV root final $t$ verbs show an interesting feature with relation to their root final phoneme: the $t$ is replaced by $\underline{b}$ - in class IV verbs 7 , or $m$ - in two of the class VIII verbs -, if the tense morpheme is followed by a plural actor morpheme. A similar sound change was found with these verbs in the first future category and when preceding u.
If following roots of class VII, tense allomorph ku is found. No doubt the same phonological reason which was mentioned in the description of tense allomorph $\underline{k}$, found with the same group of verbs in the first past tense category, can explain this allomorph (182). The Yali second future tense category is semantically characterized by the information that an action will be performed in the future, i.e. tomorrow or later.

### 4.3.5.1 Comparison.

Van der Stap's morphological description offers no forms which are comparable with members of the Yali second future tense category (183). However, Bromley mentions an "uncommon" future tense morpheme hyp, with allomorph kvp if following vowel final roots, which "refers explicitly to the distant future", but is "not marked for person or number of the subject" (184). The forms given in the paradigma show great regularity, as do the Yali second future tense forms (185). Our conclusion can be, that there is a future tense morpheme, common to Yali and Dani, which is (u) $\underline{\underline{u}}$, , allomorph $\frac{\underline{v}}{\underline{u}}$; we must note that Yali differentiates as to the actor morphemes which follow the tense marker, while Dani shows only one actor morpheme, which is p for all subjects (186).

There remains one question in relation to the semantic implications of this category. Bromley considers his hvp/kvp to be a portmanteau, marking both future tense and potential mode. As I understand it, the Yali future tense has no ambiquities concerning the factuality of actions which are meant in the second future tense forms, i.e. Yali does not know of potentiality in this respect. The phoneme $\underline{h}$ which on
several occasions was brought forward by Bromley as a marker of the factive mode, notably in the Dani past tense categories, could be analysed as a factive marker as well in the future tense suffix, unless Dani indeed implies the idea of potentiality in the semantic characteristics of its future tense (187).
4.3.6 Irrealis.

Forms like the following are members of the category of the irrealis:

| $\begin{aligned} & \text { Class I } \\ & \text { root bal } \\ & \text { balte } \end{aligned}$ | Class II <br> root menen <br> menente | $\begin{aligned} & \text { Class III } \\ & \text { root kolap } \\ & \text { kolaple } \end{aligned}$ | $\begin{aligned} & \text { Class IV } \\ & \text { root yat } \\ & \text { yatle } \end{aligned}$ | $\begin{aligned} & \text { Class } \\ & \text { root } \\ & \text { sele } \end{aligned}$ | $\begin{gathered} V \\ s V \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| balten | menenten | kolaplen | yatlen | selen |  |
| baltep | menentep | kolaplep | yatlep | selep |  |
| balto | menento | kolaplo | yatlo | solo |  |
| baltep | menentep | kolaplep | yatlep | seler |  |
| baitep | menentep | kolaplep | yatlep | selep |  |
| Class VI root wa | Class VII <br> root laha | Class VIII root la | root waha | root at | root na |
| welen | lahalen | lelen | watlen | atlen | nelen |
| welep | lahalep | lelep | watlep | atlep | nelep |
| wolo | lahalo | 1010 | watlo | atlo | nolo |
| welep | lahalep | Ielep | watlep | atlep | neler |
| welep | Iahalep | lelep | watlep | atlep | nelep |

Following most consonant final roots - including the class VIII roots at and (waha allomorph) wat, and the class VII roots - the element common to these forms is the irrealis marker 1 . If the preceding root final consonant is $\underset{\underline{I}}{ }$ or $\underline{n}$, however, the irrealis marker is $\underline{t}$ (188). Following the vowel final roots - except those mentioned in the preceding paragraph - irrealis allomorph V1 is found; in this formula $\underline{V}$ stands for a vowel which harmonizes with the vowel of the actor morpheme. The $\underline{V}$ replaces the root final vowel of the verbs in this category.

The irrealis category, which does not imply any temporal aspect, is characterized by the information that the action meant in the verb root, which by the speaker is hoped for or expected to be performed, was not performed or will not be performed by the actor meant in the actor morpheme.

### 4.3.6.1 $\underset{=\equiv=\equiv==}{\text { Comparison }}$

The relative simplicity of the Yali irrealis forms corresponds with that of the irrealis forms found in Dani. The analysis given by Van der Stap conforms with the one that I gave of the Yali forms: "irreal aspect-morpheme" 1 , following the verb root and preceding the actor morphemes (189).
His description does not mention any "secondary" or "(pseudo-)tertiary" irrealis forms. Because he focussed his description of these "categories" mainly on the fact that they were marked with "voicemorphemes", and not on the description of morphological peculiarities found with verb classes, existing irrealis forms of vowel root final single verla in Dani probably escaped his attention (190).
Irrealis forms of such verbs, however, are mentioned by Bromley e.g. nele (root na), hele (root ha), lele (root la), ile (root i) (191) - , who for that matter offers an analysis which is similar to the one given by Van der Stap; he also finds the "hypothetical mode" marker 1, with allomorph il, if following nasal and lateral roots $;$ in this respect the dialect described by Bromley shows a difference with Mogogo, but corresponds with Yali where class I and II roots also are followed by an allomorph irrealis marker (192).

Our conclusion can be that there is an irrealis marker (V) $\underline{\underline{I}}$ in both Dani and Yali; in both languages the verb roots ending in laterals or nasals are followed by an irrealis allomorph. The semanticcharacteristicof the "irrealis" category - a term which is preferable to "hypothetical", I think, because forms showing the corresponding formal feature are rather non-factive than hypothetical, as I understand it (193), - is also similar in both languages. The irrealis is indeed rather frequently used, for among other reasons to "give expression to different emotions, such as fear, regret, indignation, satisfaction, relief, desire etc." (194).

### 4.3.7 Hortatives <br> 4.3.7.1 Immediate hortatives

The following forms are some members of the immediate hortative c.q. imperative category in Yali:


After segmentating the verb root we find the following hortative morphemes and allomorphs, all of which follow the verb root:

| ik | allomorphs following verbs of class VI |
| :--- | :--- |
| in | imin |
| ukag | awas |
| uk |  |
| iek | imiek |
| ukag | awag |

If following the vowel final roots of classes V, VI and VII, the initial vowel of these morphemes, or allomorphs replaces the verb
root final vowel.
The verbs of class VIII need a separate description:

- the forms denoting 1 ps actor show the usual morpheme ik following the verb root, which for the verb waha is allomorph wat;
- the expected forms denoting 2 ps actor and 2 pp actor of the verbs la, waha and na are blocked by the forms given in the above paradigmata;
- the verb at has allomorph root am preceding the morphemes which denote an other actor than 1 ps ;
- the verb waha shows allomorph root wam preceding the morphemes which denote 3 p and 1 pp actor
- the verbs la and na are formed in the same way as other a root final verbs, if their roots are followed by the allomorph denoting 3 p actor;
- the forms of at and waha show allomorph ag denoting 3 p actor following the allomorph verb root;
- with all four verbs, forms showing the normal morpheme uk which denotes 1 pp actor are found, however, with at and waha following their allomorph roots.

This last remark is interesting, since allomorph roots are found also with verb class IV, where instead of root final $t$ the phoneme b is found preceding a morpheme which has initial $\underline{u}$. The same root final changes were noticed in the description of the first future tense (195).

Comparison of the hortative forms, which indicate 3 p actor, with the actorless forms of the gerund category in Yali (196), reveals an interesting feature; all 3 p hortative forms, regardless of verb class, can be brought into the formula: gerund followed by element ag. This suggests more unity in the morphological make-up of 3 p hortative forms than my previous description seems to imply. Presently, however, it seems doubtful if the mentioned feature helps to explain the 3 p hortative forms more fully. Opposition of hortative forms, which indicate 1 ps and 1 pp
actor, brings out the opposition i-u, noticed several times already. In other forms this formal opposition also corresponds with the semantic opposition singular vs. plural (197).

The semantic implication of the hortative category in general is the admonition to the immediate performance of an act. In this respect the category is contrastive with the deferred hortative, which will be described below.
The hortative forms which indicate 1 p actor are hortatives in the normal sense of the word. Although they are often used in interrogative sentences, examples of their use in indicative sentences abound in the Abenaho dialect of Yali. This seems not to be the case in the Angguruk dialect, however, where the forms, described as hortatives with 1 p actor indicated in this study, are termed interrogatives instead (198).

### 4.3.7.2 Deferred hortative

The following forms are examples of members of the deferred hortative category in Yali:

| Class I | Class II | Class III | Class IV | Class V Class VI |
| :--- | :--- | :--- | :--- | :--- | :--- |
| root bal | root menen | root kolap | root yat root sV root wa |  |
| baliuk meneniuk | kolabiuk | yariuk siuk | wimuk |  |
| Class VII Class VIII |  |  |  |  |
| root laha root la | root waha root at root na |  |  |  |
| lahiuk | alu | manu | amuk | anu |

In most verb classes the deferred hortative morpheme is iuk, which follows the verb root, and takes the place of the root final vowel if it follows members of class $V$ and VII.
If it follows members of class VI verbs, the allomorph imuk in this category replaces root final a also. The allomorph imuk might be composed of two elements, historically speaking: an element im, indicating future, and uk, indicating admonition. This is suggested by the occurrence of ( $\underline{V}$ )프 in the first future and immediate hortative categories (199).

Along these same lines, $I$ suggest that root am is an allomorph of the class VIII verb at, which is followed by deferred hortative allomorph uk. The allomorph root aml has been introduced already several times in other categories which imply some sort of future (200).

The other class VIII verbs show blockading forms in the deferred hortative category. The same phenomen was mentioned for its 2 p actor forms in the immediate hortative category (201).

The semantic implication of the deferred hortative category is the admonition to perform an action in the not-immediate future, and is addressed to 2 p actor. This future is not exactly defined as to its temporal limits.

### 4.3.7.3 Comparison

Compared with the hortative, or semantically related, categories in Dani, the Yali pattern, although more intricate than e.g. some tense categories, still is relatively simple and clear cut. The comparison of the formal features found in both languages to mark hortative categories is hampered by the fact that Van der Stap's account does not agree with Bromley's in some points. That the dialects described by them sometimes are slightly different might be a reason for this disagreement.

To analyse hortative forms which indicate 1 ps or 2 ps actor, Van der Stap introduces the term "stem" (202). A stem is "made up of the root-morpheme, followed by the same vowel as that of the infinitivemorpheme" (203), which means that the "stem" of the normal categories ends in $\underset{\text { i, }}{ }$ those of secondary categories in a; as indicated several times already, this "secondary stem" is nothing but a vowel final root. Because this "stem" is found only in some hortative categories, I wonder if "assuming this entity" helps us very far in the analysis of hortative forms. The idea of stem is mentioned also by Bromley; he considers i, following the verb root, - allomorph $\underline{v}$, if following vowel final roots - to be an "empty morph", furftioning as "stem-formative" (204). A comparable segmentation of hortative
morphemes is done by Bromley in the analysis of forms showing $\underline{\underline{u}}$ following the root morpheme - or allomorph o if following vowel final roots - ; in those cases, however, $\underline{\underline{1}}$ is considered to be a portmanteau, marking hortative mode and implicitely referring to 1pp actor. To facilitate comparison, I will first take the "stem formative" as part of the hortative suffixes.
The morphemes marking the 1 and 2 ps hortative mode categories in Dani are ik, or allomorph $k$, if following vowel final roots, and in or $\underline{n}$, if following vowel final roots (205). These suffixes are easily comparable with the Yali morphemes marking 1 ps and 2 ps hortative.

Both Van der Stap and Bromley give two different morphemes, which mark 3 p hortative; the different forms, i.e. cak (or uwak) and (i)nek, go along with a difference in meaning between the two, which Van der Stap describes as the difference between mild and strong adhortative respectively, and Bromley as the difference between deferred and immediate hortative. I am unable to decide which description is more correct; there might be also a slight difference between the two dialects, which could account for the two interpretations. In terms of comparative morphology the interesting thing here is the absence of the (i)nek morpheme in Yali; the oak/uwak morpheme however, resembles the Yali 3 p hortative morpheme ukag/awag. As I have indicated above, the Yali 3 p hortative morpheme corresponds to the formula: gerund, followed by ag. Remarkably, the Dani oak/uwak morpheme fits well into the same formula (206). That many of the resulting 3 p hortative forms in Yali show a k preceding the element ag, while comparable forms in Dani have a vowel or semi-vowel (w), corresponds with the fact that the gerund and 1 pp hortative categories in Dani have homophonous forms, both without final consonants, while many of the Yali gerund forms have also forms homophonous with the 1 pp hortatives (207).
This brings us to the description of the 1 pp hortative morpheme. Van der Stap mentions the element uok in this connection (208) and allomorph ouk or ouok as the feature marking the "secondary" category of 1 pp hortative (209) -.
Bromley brings forward the morpheme uok also, but as the marker of
a deferred hortative, which is opposed to the marker of 1 pp immediate hortative: u.

The alxeady-mentioned analogy between Yali and Dani concerning the homophony of their gerunds with their 1 pp hortatives is a sufficient reason to suppose that, formally speaking, the Dani morpheme $\underline{u}$ and the Yali morpheme uk are comparable items (210). But, semantically speaking, the Yali uk is also related with the Dani uok, mentioned by Van der Stap. The existence of a morpheme uog in Yali, which is found in a strictly bound syntactical structure (211), makes the hypothesis acceptable, that a former 1 pp hortative morpheme mok in Yali has existed also. The Yali 2 pp hortative morpheme iek has no counterpart in Dani, which is comparable with it in a formal sense; nor has the deferred hortative iuk. Their categoric meanings correspond in Dani with the morphemes (i)ni and (i)no respectively; the latter one reminds us of the element nu, which might be distinguished in some blockading forms in Yali (212).

Our conclusion is that the similarity of Dani and Yali with respect to the morphemes marking the immediate hortative mode for resp. $1 \mathrm{ps}, 1 \mathrm{pp}, 2 \mathrm{ps}$ and 3 p actors can be considered as a fact. The morphemes marking 2 p actor and hortative mode whether immediate or deferred are not identical at the present time.

Not found in Yali are counterparts of the following Dani morphemes, which, by the way, are not interpreted identically in the descriptions of Van der Stap and Bromley - although generally the two dialects described by them correspond with each other remarkably well - : Suffix

3 p future adhortative (213) (́ㅡ) nok 2 ps deferred hortative (216)
3 p strong adhortative (214) (i)nek 3 p immediate hortative (216)
Comitative adhortative (215) oakai/upakeik 2 pp deferred hortative (216)

Synchronic analysis and comparison of data from the two languages show that the patterning of hortative categories is more irregular than was seen in e.g. the past tense categories. The attempt to discover more unity in the greater Dani family by means of diachronic
analysis seems a rather hopeless task, since it is hampered by the absence of any historical data. Statements on a more original shape of hortative forms consequently are fairly hypothetical (217). This does not affect the basic identity of the semantic characteristics of all the inmediate hortative forms mentioned in this chapter. It is the information that the action meant in the verb-root must be accomplished by the actor indicated. I will come back to the problem of actor markers in these categories in section 4.3.9. Bromley consicers the hortative categories to be a part of the potential mode categories, which also include the future tense categories. His opinion is given in the following words: "Potential mode is not marked by a mode-specifying affix in the position occupied by the markers of factive and hypothetical modes. but rather is marked in portmanteau suffixes, which also specify modal sub-categories " (218). There is a possibility, however, to envisage a further segmentation of all hortative forms in both Dani and Yali in such a way that they correspond to the formula RVP, in which $R$ stands for the verb root, $V$ for a vowel - to be considered the marker of the hortative mode - and P for an actor morpheme (219).

### 4.3.8 Intentional aspect

The intentional aspect category is not marked for actor in the strict sense of the word, but since it differentiates with respect to the actor number - and implicitely refers to 1 p actor - I include it with the categories which show actor markers. Moreover, it shows interesting formal connections with the hortative category. The following forms are some members of the category:

e.g. root bal: | baliog |  |
| ---: | :--- |
|  | $\underline{\text { baluog }}$ |
| root yat: | yariog |
|  | yabuog |

Vowel final root classes:

| Class $V$ | Class VI | Class VII |
| :--- | ---: | ---: |
| root $\mathrm{sV}:$ | siog | root wa: wiog |$\quad$ root laha: lahiog

Class VIII
root la: liog root waha: wariog root at: ariog root na: niog
luog

The members of the intentional aspect category occur only preceding the participle ulug (220). Formally they are characterized by the intentional aspect morpheme which follows the verb root, and is iog if denoting singular actor and uog if denoting plural actor; "verb root" in this descriptive formula stands for the same root or, depending on the verb class, its allomorph which is found preceding the 1 ps hortative morpheme or the 1 pp hortative morpheme respectively.
There is no exception to this rule. This absence of exception as such is rather exceptional in Yali and definitely indicates a firm historical relationship between 1 p hortative forms and the intentional aspect forms.

The opposition between singular and plural in the intentional aspect morpheme seems to correspond with the formal opposition $i-u$; we have met this opposition several times already (221). The element og , which is common to both morphemes, could thus be considered to correspond with the meaning "intentional aspect". However, as my analysis of intentional aspect forms shows, intention semantically is related with 1 p action: e.g.
baluog ulug surusa: "they were planning to cut", i.e.
cut - "we-should- do" saying they-did
Thus, more accurate rendering of the above sentence is: "they were in the position of having said: We should cut" This semantic relationship is warranted fully by the formal similarity of 1 p hortative forms and intentional aspect forms, found in Dani, as $I$ will mention below.

Taking this remark for granted, we can define the semantic characteristic of the intentional aspect category as the information that an actor or actors want to, or are expected by the speaker, to do something.

### 4.3.8.1 $\xlongequal{\text { Comparison }}=$

Dani has its intentional aspect category as well. It is analysed by Van der Stap as being characterized formally "by the intentional aspect-morpheme $\eta^{h}$ luk, suffixed to the forms of 1 st p.sg. or adhortative aspect category" (222); in this formula $V^{h}$ stands for a vowel harmonizing with the immediately preceding vowel. The statement, that $\mathrm{V}^{\mathrm{h}}$ luk $"$ is suffixed" evokes the impression that forms like gulikiluk, guluokoluk etc. (222a)have primary word accent on the final syllable. A check on the forms offered by Van der Stap proved, however, that the accent is on the final syllable of the 1 p
hortative forms which are present in the intentional aspect forms:


Thisisindeed a strong argument in favor of the idea that the first part of the intentional aspect forms is indeed a 1 p hortative form. What remains than is the element $V^{h}$ luk, which reminds us of the participle yluk, found also in the study by Van der Stap (223). As I have indicated above, the intentional aspect forms in Yali are indeed always followed by the participle ulug.
Bromley reaches the same conclusion for his Dani dialect: intentional aspect forms are composed of 1 p hortatives plus postcliticized perfect participle yluk of the verb root $\underset{\text { i (224). }}{ }$ Considering these facts, we have to conclude that the "intentional aspect morpheme $\underline{V}^{h} l u k "$, including, by the way, the "adverb" yluk (225) and "formal element" Iuk, in Mugogo Dani also is at best considered to be the "past participle " of the verb in (226). The root $V$ of this verb, which generally harmonises with a following vowel, apparently harmonises with the preceding vowel in the case of the intentional aspect forms in Mugogo Dani (227). The semantic characteristic of the intentional aspect forms - i.e. "the information that the actor is (or actors are) intending to perform the action of the root-morpheme" (228) -, is no objection against the analysis given, since its implications can be easily read out of the meaning of the composing forms: 1 p hortative,
followed by a participle, which implies that the same subject will be found in the next verb in the sentence. A similar type of syntactical composition is the case of 3 p hortative, followed by the participle ulug, - it occurs frequently in Yali, and also is found in Dani as far as.I know -; it is the expression of what might be termed "instructive aspect". That the intentional aspect - unlike the second example of the syntactical combination - is a morphological subject, has its origin in the formal features shown by this category: the harmonizing of the vowel in $\mathrm{v}^{\mathrm{h}}$ luk with the preceding vowel in Dani, and the occurrence of the morphemes iog and uog which are not found in other categories - in Yali.
Moreover, as I have mentioned in the preceding section, these morphemes are a grod illustration of the historical relationship of Dani and Yali 1 p hortative categories, since they occur in the same position in a category where Dani has 1 p hortatives in the identical position in a comparable category (229).

### 4.3.9 Actor morphemes

In the preceding sections the tense and mode categories were described and the formal elements corresponding with themeaning of a specific tense or mode analyzed, if possible. In most cases the tense or mode markers were of the first order, i.e. they follow the verb root immediately.
Nearly no attention was given to the actor markers in the described categories, although they always accompany the tense or mode markers. Actor markers generally are of the second order, i.e. they follow the tense of mode marker, which follows the verb root. It is a remarkable fact that Van der Stap decribes the actor morphemes found in Dani before the description of the tense categories (230), and Bromley describes them in connection with the simple factive category (231). Both of them come back to the actor morpheme, especially when allomorphs occur, in the discussion of several of the tense categories and the irrealis category, but, as I found it, not in the description of hortative and future categories. In the latter categories mainly portmanteau suffixes seem to be analysabie.

The reason for this separate treatment of the formal aspect of actor indication in the tense and irrealis categories and the hortative and future categories, apparently is the lack of uniformity in the latter categories.
This is especially the case if a morphological treatise focuses on the synchronic description of one language. However, "particularly in areas where related systems of behaviour are diverged in pattern, an approach which includes structurally analyzed comparative and diachronic data is most useful for description of any of the single systems involved" (232). Such an approach is followed here in the description of actor morphemes in the Dani and Yali languages.

To start with, I list here the actor morphemes found in past tense and irrealis categories after segmentation of verb root and tense/irrealis markers. When not stated otherwise, the corresponding actor marked in these series is: $1 \mathrm{ps}, 2 \mathrm{ps}, 3 \mathrm{ps}, 1 \mathrm{pp}$, 2 pp , and 3 pp . If necessary, the verb class showing an actor allomorph in some category will be mentioned also:

First past tense (233)

| Yali |  | Dan | (Mugogo) |  | Dani | (Grand Valley) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Class VIII |  | secondary | tertiary |  | following k |
|  |  | I | (234) | (235) | $\underline{\text { i }}$ | Y |
| en |  | en |  |  | $\underline{n}$ |  |
| ek | a | e | he | , | e | he / a |
| e |  | 응 |  |  | $\underline{\underline{u}}$ | ㅇ |
| ep |  | ep |  |  | p |  |
| esa |  | a | ka | eikha | a | eikha / ha |
| Second past tense |  |  |  |  |  |  |
| Yali | Dani |  |  |  |  |  |
| ik | $\underline{y}$ |  |  |  |  |  |
| in | en |  |  |  |  |  |
| si | he |  |  |  |  |  |
| $\underline{u k}$ | u |  |  |  |  |  |
| ip | ip |  |  |  |  |  |
| sa | ha |  |  |  |  |  |

Third past tense
Yali


The following conclusions with relation to these actor morrhemes are warranted: first person actor generally is marked by a vowel which follows the tense morpheme except for second past tense; if there is opposition shown between 1 ps and 1 pp , this opposition corresponds with the formal opposition between a front and a back vowel (236). Second personmarker is Vn if singular actor is meant, or $V \underline{V}$ if plural actor is meant; $V$ in these formulas stands for a vowel, which is generally e, but i with 2pp actor in the second past tenses in both languages and with 2 psactor in Yali. The opposition singular vs. plural apparently does not correspond with the opposition between vowels, but with the $\underline{n}$ vs. $\underline{p}$ contrast (237).

Third person actor is marked in two ways:A) with morphemes si and sa, corresponding with he and ha in Dani. The opposition singular vs. plural is present here, formally corresponding with the opposition front vs. mid/back vowel. That this opposition is of the same type as the above mentioned one, is shown by the fact that in categories which have a tense morpheme vowel harmonizing with the actor morpheme vowel, there is always opposition between the tense morpheme vowel, which is followed by sg. actor marker, and the one followed by $p l$. actormarker;even these reflect the opposition front vs. back, although sometimes very slightly:


The difference between $\underline{s}$ and $\underline{h}$ of the 3 p actor morphemes in Yali
and Dani does not exclude a common origin; other pairs of cognates show a similar contrast (238).
Most 3 p actor allomorphs can be explained in a proper way (239). B) third person actor can be marked also by a morpheme which 1 s similar to the marker of 2 pp. This type of actor marking is found in the third past tense and irrealıs categories.

This survey of actor markers in some categories of Yali and Danz reveals that certain regularities with relation to the person marked are at least as important as the number marked. This is very clear also from the future tense categories, whose suffixes are listed below:

First future

uI
lihip
Iusa/ukon


Second future


As suggested in section 4.3 . 4 , the future tense morpheme can be analysed as liquid-vowel-h. Originally however, the future tense category might have been more simple with relation to its formal features. It seems that of the present forms, those marking 1 p actor represent one stage of the language, and those marking $2 p$ and 3 p actors another (240).
Presently the elements in following future marker $\underline{m}$ and $\underline{u}$ following zero future marker or dissimilated future marker t, mark 1 p actor. The opposition $\underline{i}-\underline{u}$ corresponding with singular vs. plural is present. Whatever the historical status of in and ul - one might even think of them as markers without specific person indication in the present situation their meaning is clearly defined. Second person in the first future tense is marked in Yall with the same morphemes which mark resp. 2 ps and 2 pp in the second past tense:
i.e. in and ip. These morphemes follow the future tense morphemes min, or lik (241).
Third person is marked in the way described above sub A: si for singular, sa for plural. The vowel in the future tense morpheme preceding them is í if followed by singular marker, or $\underline{u}$ if followed by plural marker; the nature of these vowels is in accordance with the common formal opposition which corresponds with the opposition singular vs. plural (242). This opposition is found again in the Dani first future category and in the Abenaho forms, which usually mark 3 p actor. The tense suffix VkVn might be segmentated into the elements $V k$ representing future tense (243) and $V n$ representing actor without respect to person. Since formally $\mathrm{Vn}_{\mathrm{n}}$ is identical with 2 ps actor morpheme, it might originally have represented only 2 ps actor; one could assume the hypothesis that it gradually acquired a more general meaning, along with the differentiation of the actor number.

The same development is conceivable with respect to the second future tense in Dani. The only element where an actor marker could be expected here is $\underline{p}$, without differentiation of person and number. This morpheme p is formally identical with the marker of 2 pp . Thus, while actor marking in Dani is even less differentiated in the second future tense than in the first future, the same can be said for Yali. Although in the latter language four contrastive actor markers are found in the second future, the first future tense exceeds this total with its six contrastive actor markers. First person is marked in the second future category with morpheme $\underline{k}$, without respect to number (244).

Second person is marked with the usual morphemes: $\underline{n}$ if 2 ps actor is meant, p if 2 pp actor is meant.
Third person is marked in the way sketched above if 3 pp is meant; the marker of 3 ps actor is zero (245).

The suffixes found in the hortative and intentional aspect categories are listed as follows:

| Yali |  |  | Dani |  |
| :---: | :---: | :---: | :---: | :---: |
| Hortative |  | Intentional aspect | Hortative |  |
| Immediate | Deferred |  | Immediate | Deferred |
|  | iuk (imuk) <br> iuk <br> (imuk ) | iog uog | $\underline{i k}$ $i n$ $(\underline{i}) n e k$ u (i)ni (i)nek | $\begin{aligned} & \text { (i)nok/(i)no } \\ & \text { uwak (oak) } \\ & \text { uok } \\ & \text { (i)no/upakeik } \\ & \text { uwak (oak in } \end{aligned}$ |

The morphemes found in these categories constitute a rather intricate pattern. First person in the present situation is marked with morpheme $k$ following a vowel which follows the verb root; this vowel is $\underset{i}{ }$ if singular actor is meant, and $\underline{u}$ if plural actor is meant. For reasons I have set forth in the preceding section, it is my opinion that this $k$ is the present result of an original morpheme ${ }^{\mathbf{\prime}} \mathrm{Og}$, which might have been a general indicator of hortative aspect. It is still found in the Yali intentional aspect morpheme and the Dani 1 pp deferred hortative.
Probably this original morpheme can better by symbolized as ${ }^{*}{ }^{*} g$ (or ${ }^{{ }^{\text {Vk }}}$ in Dani). We recognise its occurrence, besides the cases mentioned above, in all the hortative morphemes which end in $\mathfrak{g}$ or $\underset{\mathrm{k}}{\mathrm{k}}$. This idea is especially illustrative in the 3 p hortative suffixes. As I have indicated above, all of them can be interpreted as element ag following the gerund morpheme (in Yali, and the deferred 3 p hortative morpheme in Dani). One can easily suggest that the combined meanings of gerund and general hortative produce the meaning of 3 p hortative.

Probably the same original morpheme is present in the Dani 3 p "strong adhortative" or "immediate hortative" suffix (i)nek. In struggling with all the hortative forms, Bromley launched the idea that $\underline{n}$, whenever occurring in them, is a portmanteau, representing an actor which is not 1 p , and implying that the actor meant is 2 ps (246). Since we found $\underline{n}$ as a marker of near future
action, without specification as to the person of the actor (247) - besides $\underline{n}$ as definitive marker of 2 ps - it seems reasonable to continue in this line of analysis. The suffix (i)nek consequentiy contains this element $\underline{n}$, followed by the already mentioned ${ }^{\text {Fk. }}$.

Several elements discussed in the foregoing paragraphs can be found back in the 2 phortative morphemes. Yali and Dani have in common the morpheme in marking 2 ps . It can be argued that in previously has been ${ }^{(i n-n}$, implying the meanings of near future action and 2 ps actor; the allomorph imin, which is found with verb class VI hints at such a historical morpheme, since it contains also an element indicating future, im (248), and an element which indicates 2 ps actor: in.
The allomorphs of the 2 p deferred hortative in Yali, found with verb class VI, hint also at the sesmentation of the deferred hortative morpheme imuk apparently contains the same element im, which is followed by element uk. This last element certainly is related historically with ${ }^{*}$ Vg. The suggestion of a previous morpheme ${ }_{\text {En-n }}^{\text {inn }}$ in the preceding paragraph is confirmed by the 2 ps deferred hortative in Dani: (i)nok, as is the relationship of element uk in the Yali deferred hortatives with ${ }^{\boldsymbol{*}} \mathrm{Vg}$. We might consequently suggest as well a morpheme ${ }_{\text {In-uk }}$ as a predecessor of iuk.

An analoguous development can be assumed for 2 pp immediate hortative morphemes iek and (i)ni. Probably the usual 2 pp actor marker $\underline{p}$ was found as the final phoneme of both morphemes: invip; this at $^{\text {in }}$ any rate is indicated by their Western Dani counterpart (249). The suffix (i)no in Dani seems to have developed from the already mentioned (i)nok; since it presently indicates both 2 ps and 2 pp actor, its evolution might have been analogous with that of 2 pp immediate hortative suffix (i)ni.
Finally, the suffix oakai (mentioned by Van der Stap), which is cognate with upakeik (mentioned by Bromley), contains two elements; the first is the already described oak (or uwak), the second an original 2 pp actor marker ip, which developed along the same lines as described for the 2 pp immediate hortative morphemes (250).

Although the description and analysis of person markers has been long, and with a certain amount of historical hypothesis, the ori-
ginal unity of Yali and Dani have become the more clear. In nearly all of the tense and mode categories with marked actor we have found tense or mode markers preceding the actor markers (the only exception was the Yali third past tense). Notwithstanding the apparent skewing of the patterns found in the future tense and hortative mode categories, they have all proven to be analysable in the same way (251).

## 

The categories to be described in this section have formal characteristics of morphemes which are of the third order, if preceded by an actor marker and a tense marker, which follow the verb root. In Yali the third order morphemes are also found in forms which have the irrealis marker instead of a tense marker; I am not sure whether this is always the case in Dani also. The third order morphemes are not found if a hortative mode marker occurs following the verb root.

To facilitate the description I will use the symbol $F$ in this chapter; it stands for a form which is a member of any of the tense and irrealis categories, and thus contains a verb root, a first and a second order morpheme.

### 4.3.10.1 Prior action

The category of prior action forms is characterized formally by morpheme / deg/, allomorph seg following F.The members of this category which generally occur in phrase final position, are chained with other verbs in such a way that the phrase containing the prior action forms is followed by at least one more verb form within the sentence. Besides this syntactic valence, the category semantically is also characterized by the information that the action meant in the verb root is performed prior to the action meant in the next verb form in the sentence, and that both actions are performed by the same actor.
The morphological structure of the prior action forms is quite simple. Since the morpheme is affixed to other morphemes, not to the verb root, there is no differentiation, which depends on the verb class membership of the roots. The following rules describe
the occurrence of the morpheme and its allomorph:
a. if $F$ ends in a vowel, the prior action marker is reg (252)
e.g. wahesareg, cf. wahesa
yarihireg, of. yarihi
balehereg, cf. balehe
holoreg , cf. holo
aruhureg , cf. aruhu
b. if F final is g , the corresponding prior action form
lacks this $g$ and shows marker reg:
e.g. wapareg, of. wapag
sowareg, cf. sowag
c. if $F$ final is $p$ or $k$, prior action allomorph seg is found:
e.g. baltikipseg, cf. baltikip
waruhukseg , of waruhuk
A. if $F$ final is $\underline{\underline{l}}$ or $\underline{n}$, the prior action marker is teg (253)
e.g. wamulteg , cf. wamul
warikonteg, cf. warikon
This four rules cover all the cases.

### 4.3.10.2 Comparison $=$

Van der Stap describes several categories in Dani which have the attribute "perfect past" in their nomenclature. All of these together show a categorical similarity of form and meaning.
The first one, named "perfect past tense", semantically indicates, "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" (254). The members of this category are never found in independent clauses. Van der Stap's morphological analysis of forms like hugalhytik, balhettik etc. results in the segmentation of root and "tense-morphemes hVtik, hVsik and hesip in a certain obligatory distribution" ( $\underline{V}$ stands for actor morpheme) (255).
Recalling the fact that the element $\underline{h}$ following the verb root was
already analysed as a tense morpheme (256), and that in the mentioned suffixes preceeds $V$, i.e. the actor morpheme, the alternative analysis of "perfect past tense forms" could as well result in the formula: F, followed by element tik or allomorph sik (in which $F$ stands for a near past tense form). This formula not only holds for the members of this category which have 1 p or 3 p marked actor, but also those with 2 ps and 2 pp actor. For the explanation of a 2 ps form like balhettik (root bal) Van der Stap suggests that "the assumption must be made that $\underline{n}$ assimilates to the following $\underline{t}$ " (257), which is a valuable suggestion.

For the explanation of 2 pp forms Van der Stap makes no suggestion he just calls the whole suffix hesip a tense morpheme -, but in this case also a reasonable assumption clarifies the picture: in a form such as balhesip the morpheme final $\underline{k}$ is replaced by final (i.e. person marker) p ( ${ }^{*}$ balheptik, ${ }^{*}$ balhepsik balhesip) (258).
Members of another category in Dani, which can be formulized F, followed by prior action marker, is named "perfect past habitual aspect category" (259). As with the preceding form, this one is found only in dependent clauses. This syntactical valence apparentIy corresponds with the formal feature tik/sik.
Van der Stap, however, in analysing "perfect past habitual aspect" forms such as
> wetathytesik (root wetat, 1 ps actor), balhettesik (root bal, 2 ps actors
> balhetesip (root bal, 2 pp actor) etc.

concludes that they are characterized formally "by the morpheme si infixed before the final consonant in the aspect morpheme of the habitual asfect category, while in 2nd p.pl. the s of the aspect morpheme is replaced by $\underline{t}^{\prime \prime}$ (260). When comparing the paradigms of several categories, however, the possibility of an alternative analysis is evident - apart from the fact that "infixation" is a morphological process found nowhere else in Dani -: the elements sik/ sip in "perfect past habitual aspect" forms (e.g. bainetesik, balhetesip) and "perfect past" forms (e.g. balhesik, balhesip) are identical; since both categories besides this formal similarity
agree with each other with respect to the syntactical valence which distinguishes them from the near past and habitual aspect categories respectively, the idea of sik/sip as the formal feature, marking the category and corresponding with its meaning, is a reasonable one. Consequently, the formula f, followed by sik/sip, holds also for the members of the "perfect past habitual aspect category". We must note that $F$ in this formula does not stand for a tense form proper, but for a near past normal aspect form (261). That the prior action allomorph sik/sip is found in these forms becomes minderstandable from the fact that the allomorph seg in Yali is also fourd if following $F$ final $\underline{k}$ (262). As with the members of this category mentioned in the second to last paragraph, 2 pp actor morpheme $\underline{p}$ anatactically replaces morpheme final $k$ (263).
As with the "perfect past" category, the present one is also characterized "semantically by the information that the habitual action was performed completely" (264); together with the restricted syntactical valence this information sums up the semantic characteristics mentioned for the Yali prior action category (265).

In the analysis of the "perfect past progressive aspect category" we can proceed in the same manner. In fact Van der Stap works in this way also now when he speaks of "perfective aspect-morphemes" sik/tik as the formal features marking this category (266). We meet the same morphonological processes as found in the preceding paragraphs: assimilation of $F 2 \mathrm{ps}$ actor marker $\underline{n}$ to the prior action marker's initial $t$, e.g.
${ }^{*}$ munenhy-lakekentik $>$ munenhy-lakekettik
and anatactical replacement of prior action marker's final $k$ by $F 2 \mathrm{pp}$ actor marker $\mathfrak{p}$, e.g.


Concerning the latter form, it will become clear that I hesitate to adopt Van der Stap's suggestion for the analysis of such forms; the idea of a special "perfective aspect-morpheme si infixed before the final consonant of the actor-morpheme" (267) would make an unneccesarily exceptional case of these forms.

Concluding, we can state that descriptive formula F, followed by tik/sik, holds also for the members of this category (268).

In describing members of a "secondary perfect past tense category" - which is, I recall, the perfect past tense category with forms of root final a verbs as members (269) - Van der Stap changes his analysis, as applied in the description of the "primary perfect past tense category" and in this case maintains the approach followed in the analysis of the "perfect past progressive aspect" category; the only difference is that in this case the "perfective aspect-morphemes" are not named as such, but referred to as the "formal elements tik/sik (and si)" (270). The distribution of tik or sik is similar to the one found in the (primary) perfect past tense category; if the prior action marker is suffixed to an $F$, which has 2 ps or 2 pp actor, the already mentioned process of assimilation or anataxis of the actor marker is observed again. Concluding, we find that the formula f followed by marker tik/sik can be used also in describing this category.
The syntactical valence is accentuated again in the statement that the semantic characteristic of the category is "the information that such and such an actor finished the action of the root morpheme.... completely, so that the action mentioned may be used as a referencepoint for a following action" (271).

The "very seldom used" secondary category of the perfect past habitual aspect" is the counterpart of the already mentioned (primary) perfect past habitual aspect category. Since the only difference between the two "categories" is a matter of verb composition i.c. the occurrence of a final a root, the analysis of the perfect past habitual aspect category suits the forms of the "secondary" category as well (272).

The "secondary category" of perfect past progressive aspect is in no way different from its "primary" counterpart as far as prior action marking concerns; cf. sepel-ysasykhy-lahykysik ("secondary")
sepelhy-lahykysik ("primary")
As in the "category" described in the preceding paragraph, differences
between the two present categories are a matter of verb composition, object marking and the occurrence of a final a root (273). The syntactical valence of forms showing marker sik is indicated in the translation (274).

After what has already been said regarding the several perfect past categories in Dani, it is hardly necessary to discuss at length the "tertiary perfect past tense category". Its analysis does not yield any difficulty. Van der Stap finds the morphemes "tik, sik and si", although he names them "tense morphemes" in this particular case (275). They are however the usual prior action markers, following $F$. If the $F$ final is 2 ps marker $\underline{n}$ or 2 pp marker p , the processes of assimilation and anataxis are observed again.

The conclusions which I reached in re-analysing the Dani material are the same as those inferred by Bromley from his data. He finds a prior action marker tyk, allomorph sik, following a verk form which is marked for an actor. "A significant portion of verb inflection signals relationships among verbs in sequence"; tyk is the marker which signals: "same subject follows" (276). We can regroup, consequently, all the "perfect" tense forms in Dani in the one category of "prior action". The formula describing prior action forms is: F, followed by tik/tyk or sik; F stands in Dani for a past tense form (277).
This formula corresponds with the one that $I$ gave for the prior action category in Yali: F, followed by teg or reg, or geg, in which $F$ stands for a tense or irrealis form (278).

## 

As I have indicated on in section 3.3 .5 the multi-purpose suffixes are found both with nouns and with verb forms. Following forms which have a marked actor, both mu/ma and en occur.

1. The suffix mu/ma can be found following any of the tense and irrealis forms. If the vowel in the last syllable of these forms is $\underline{i}$ or $\underline{u}$, the suffix is mu; if that vowel is $\underline{e}$, $\underline{a}$ or o the suffix is ma, e.g.

| wahimu, | cf. wahi |
| :---: | :--- |
| wamuhupmu, | cf. wamuhup |
| wahema, | cf. wahe |
| wapahma, | cf. wapag |
| warikonma, | cf. warikon |

The forms with suffix $\underline{m u} / \underline{m a}$ occur only in dependent clauses; semantically they indicate that the verb form marked with mu/ma is followed by at least one more verb form within the sentence and that the actor meant in the form which contains mu/ma, is not the same as the actor meant in the following verb form. In this respect forms marked with mu/ma are constrative with prior action forms.
Van der Stap does not mention a category of verb forms which are marked with a comparable suffix. Some of the examples in his study, however, show the suffix (279).

Bromley, who describes the feature of "chaining" of verbs in Dani, mentions "the occurrence of an independent sentence-final verb preceded by dependent sentence-medial verbs marked to indicate identity or non-identity of grammatical subjects" (280). The marking of identity of actors was described in the precedingsection. Non-identity in Yali is clearly marked with the suffic mu/ma. A suffix comparable with mu/ma is mentioned for Dani also: Bromley names it the "setting marker" mo/ma. As it seems, mo/ma nearly always marks non-identity of actors. It is not only found with past tense forms, whether or not with habitual aspect marker, and hypothetical (i.e. irrealis) and future forms, but also following prior action forms. Since the latter usually mark identity of subject, mo/ma in that case corresponds with the semantic indication of "place, where or time when somebody did something"; the prior action marker in this case apparently chains the action meant in the form which contains this suffix, with the implied verb of mo/ma (281).
It is clear, that mo/ma in Dani is not a suffix of the third order proper. Although it is found directly preceeded by $F$, it can also occur separated from $F$ by habitual aspect marker and/or prior action marker.
2. The suffix en can occux as a morpheme of the last order in verb forms. Forms marked with en are semantically characterized by
the information that there is a causal or temporal relationship between the action meant in the form marked with en, and the action meant in the following verb form within the sentence (282).
en occurs in Dani also, although sometimes as a clitic. If it is found following hortative or imperative forms, the term "facilitative" marker is applied to it by Bromley (283). Forms marked with en are not described as a category by Van der Stap, although some of his examples show the suffix. The fact that en in Dani also is found as a clitic together with the mainly syntactical function of this element, might be the reasons why Van der Stap did not include it in his morphological description (284).

### 4.3.10.4 Habjtual $\underset{==}{==} \underset{==}{==}=$

As I have indicated in section 3.3.4.1, there is a relationship between the semantic implications of the Yali adjunctive suffix on and the Dani marker dek/tek. We meet the same relationship in the verb morphology. In verb forms on is a morpheme of the third order, i.e. it follows an $F$ which contains a root, a tense or irrealis marker, and an actor marker. Members of the hortative categories are not found as an $F$ preceding on. Forms which are marked in this way all follow the same pattern. There are no exceptional cases to be mentioned in this respect.
Semantically, these forms are characterized by the information that the action, meant in the root morpheme, is normally or habitually done by the actor, marked by the actor morpheme. Of course, the verb forms marked with on, always refer to an implied, or explicitly mentioned, subject - which is in line with what we found in other forms, which contain the marker on.
We have to realize that the tense morpheme in the mentioned forms indicates the time limits within which an action should be understood as normal or habitual.

### 4.3.10.5 Comparison.

The meaning of Yali verb forms with the marker on reminds us of the socalled "habitual aspect" categories in Dani.
The first which is given this label is, in Van der Stap's analysis, characterized formally "by aspect-morphemes hVtek or hesV in an obligatory
distribution", in which $V$ stands for actor-morpheme (286). These "espectmorphemes" are re-analysable in the same way as some "morphemes" in section 4.3.10.2 of this chapter. Since $\underline{h}$ following the verb root is already analysed as the near past tense morpheme (287), the element hV is recognizable as comprising only those morphemes which characterize near past tense forms. By way of this analysis the element tek (also in forms, which mark 2 pp actor, as will be demonstrated below) is considered to be the marker of habitual aspect. In fact Van der Stap himself analyses the phenomena this way in the description of his "secondary habitual aspect category", when stating "that the secondary habitual aspect morpheme tek follows the form of the secondary near past tense" (288).
The categories of "perfect past habitual aspect" don't need to be mentioned separately, since they were mentioned in this chapter in section 4.3.10.2; they show F, followed by both the habitual aspect marker and the prior action marker (289). The same processes which are observable if prior action marker tik follows 2 p actor marker - as described in section 4.3.10.2 - can be noticed if the habitual aspect marker tek follows them:
if tek follows the 2 ps actor morpheme $\underline{n}$, the "morphonological assumption (viz.assimilation of $\underline{n}$ to the following $\underline{t}$ )" explains the sequence of two $t$ phonemes in a form such as balhettek ( $<^{*}$ balhentek), as Van der Stap rightly remarks (290);
if tek follows the 2 pp actor morpheme p , the morphonological process observed in section $4 \cdot 3 \cdot 10.2$ occurs: the replacement of aspect morpheme final $\underline{k}$ by actor morpheme $p$ and of aspect morpheme initial $\underline{t}$ by $\underline{s}$ (291), e.g. ('balheptek $>^{*}$ balhepsek $\rangle$ ) balhesep

The analysis of "habitual aspect categories" given here is the same as Bromley's analysis of forms which show the "normal aspect" marker, as he names the morpheme tek (292).
It seems that the Dani normal aspect forms are more often found in independent clauses than their Yali counterparts (293).

In conclusion, we can consider the process of suffixing a normal aspect marker to verb forms in Dani and Yali as a normal procedure. In both languages this marker is a morpheme of the third order. Although a
phonological relationship between the markers in the two languages is not observable in the present situation, both Dani and Yali mark their normal c.q. habitusl aspect forms with a morpheme, which is formaily identical with their adjunctive morphemes. This formal identity corresponds with a semantic identity, at least in Yali; the examples given for Dani also do not rule out such a correspondence (294).

### 4.3.11 The prohibitive.

Prohibitive utterances in Yali show a certain syntactical arrangement of words. Yali morphology does not offer forms having a categoric prohibitive meaning.
Within a special arrangement of words, the Yali second future category seems to have a prohibitive connotation, but this does not affect the implication of factuality, which is a characteristic of that category (295). In connection with this subject, I found myself wondering why Bromley could not use his normal "factive" marker $\underline{h}$ in the second future category in Dani (296). Comparative analysis sheds some light on this problem. For, unlike Yali, the Dani language has prohibitive categories.

Concentrating on formal characteristics first, we find both Van der Stap and Bromley describing a prohibitive category, which is marked with hvn, indicating 2 ps actor, or hvp, indiceting 2 pp actor. Van der Stap's analysis of the prohibitive forms of this category involves three elements: a verb root, followed by prohibitive aspect morpheme hy, followed by actor morpheme $\underline{n}(2 \mathrm{ps})$ or $\mathrm{p}(2 \mathrm{pp})$ (297). Apart from semantics this analysis is formally identical wi.th the one I gave for the Yali second future tense. Bromley's analysis of the prohibitive forms is somewhat different; he interpretes them as containing a verb root, followed by factive marker h (allomorph $k$ if following vowel final roots), followed by "prohibitive marker $\underline{v}^{\prime \prime}$, followed by actor morpheme $n$ (indicating 2 ps actor) or p (indicating 2 pp actor). Especially the idea of a factive marker in the prohibitive category is a curious one, since it seems to contradict the presupposed absence of this marker in the Dani second future category, whose counterpart in Yali certainly has a factive meaning. I cite Bromley on this subject: "The Dani prohibitive category is marked in forms, which appear to include the factive mode marker, as if what were prohibited were
not the possibility of performing an act, nor the act considered as hypothetical, but the act viewed as fact" (298).
This very statement, I think, is a plea in favor of the conception of the Dani second future as a category which is marked with the $\underline{h}$ morpheme also, although this would mean a deviation from labeling this category as "potential" (299). At the same time it indicates the possible historical relationship of the prohibitive category with the second future category in Dani.
Thus, taking some phenomena together, i.e.
a) the existence of a Yali second future category which sometimes has a prohibitive connotation and is characterized by morpheme (u)hu;
b) the existence of a second future category in Dani, marked with morpheme hv, which is found only with actor marker $p$;
c) the existence of a prohibitive category in Dani, marked with hv and found with only $2 p$ actor markers - where we have to realize that prohibition implies future -,it seems reasonable to opt for the conception of a common ancestor of all three categories.
In the development of original forms, the meaning of prohibition was gradually accentuated more in Dani, and the number of actor morphemes restricted to the two which indicate 2 p actor; of forms indicating the proper remote future tense only those with actor marker $p$ are still found presently, although any actor might be meant in these forms (300). In Yali the meaning of "future" was developed more fully, while it retained - or developed - the number of four contrastive actor markers in its second future category (301).

Against the background of such a historical development, Dani forms which are members of the so-called "long prohibitive aspect category" can be analysed in a proper way. This category, which is marked by the suffixes hvdek (in Van der Stap's transcription; Bromley has hvttek) indicating 2 ps actor, or hvsep indicating 2 pp actor, entails the information "that the addressee(s) must abstain from the action of the root morpheme" (302). Van der Stap analyzes these suffixes in forms such as munenhvdek (root munen), munenhysep etc., as consisting of "aspect morpheme $h v$ " and "actor-morphemes" dek and sep. Since the idea of these "actor morphemes" would mean another introduction of elements which were never found in any other category of
the Dani verb, I rather agree with Bromley's analysis of the forms under discussion; he considers the suffixes hvttek and hvsep as a combination of prohibitive category marker and the normal aspect marker; the semantic implication of the "long prohibitive category" fits in very well with this analysis. As other forms containing the normal aspect marker, also members of the "long prohibitive category" can be described with the formula: F, followed by tek; in this case $F$ stands for a prohibitive form. The same morphonological processes, found with habitual aspect and prior action forms, can be observed here:
if tek follows 2 ps actor marker $\underline{n}$, assimilation of $\underline{n}$ occurs: e.g. * wathvntek $>$ wathvttek $>$ wathvdek cf. wathvn. I don't understand why Bromley in his analysis speaks of the "normal aspect marker" te, which in forms like the above is "obligatorily followed by empty closing element $\underline{k}^{\prime \prime}$; such an empty element seems unnecessary to me, since the normal "normal aspect" marker already contains a final k (303);
if tek follows 2 pp actor marker p , the aspect marker initial is replaced by $\underline{s}$, and the aspect marker final anatactically by actor marker p: * wathvptek $>$ * wathvpsek $>$ wathvsep.
The analysis of "long prohibitive aspect" forms consequently should be no other than the treatment of normal aspect forms.
By way of an appendix to the description of the mentioned forms, I list here two other ways of making prohibitive statements in Dani although they partly belong to the sphere of syntax.
The first labeled "common prohibitive aspect category" (304) or "remonstrative" (305), is characterized by a "formal element he", suffixed to the verb root, and followed by the "adverb huk". That he and huk can be separated by the insertion of other words, e.g. baike modok huk, cf. baine huk, indicates that this "prohibitive aspect category" is rather a syntactical subject. However, element he cannot be accounted for in other fields of the language, we are told, since "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" (306). Bromley states that his "remonstrative" is to be considered as "a verb form homophonous with the third person singular simple factive form followed by the free particle huk "wrong"". Comparative analysis shows that the homophony of he
with 3 ps near past tense suffix is an important datum: it correlates with the homophony found in Yali of a 3 p form with the durative stem (307). This could indicate that morpheme he is a kind of durative stem marker in Dani also, comparable to other such markers in the same language, e.g. hy (308). The idea of "one bipartite aspect-morpheme" he huk is surely not indicated by comparative research (309).

Finally, Bromley mentions a category which can be classed under "prohibitive" as far as its meaning concerns. Its form is analysed as "potential gerund" (with or without vowel assimilation) followed by "preclusive suffix" huk. This "suffix" of course is the same as huk in the above paragraph. Bromley states that it "also occurs as an independent particle meaning "wrong". Form and meaning of this prohibitive category in Dani are similar, except for word accent, to the Yali combination of gerund (310) and negator fug, which is cognate with Dani huk (311). The very interesting difference between the syntactical prohibitive arrangement in Yali and the prohibitive category in Dani is the fact that while Yali (still) has word stress onthe gerund final syllable, Dani has progressed in this sense that the stress is shifted from that position to the - former - particle hvk; in this development hvk apparently has acquired the status of categoric morpheme (312).
5. Primary verbs: categories without indication of actor

### 5.1 Introduction

Chapter 5 of this study will be devoted to a description of verb forms which are not marked for person or number. Although the actor is not marked in these forms, it is often implied. Several categories to be mentioned entail as one of their semantical characteristics information with respect to identity or non-identity of the implied actor with the actor marked in a following verb form in the sentence. Most of the forms to be described are verbs in the syntactical sense of the word. Some of them may be members of another word class. However, since all of the categories tobe discussed have as their members forms which are made up of a verb root - as found in the preceding chapter 4 also -, followed by some morpheme, they are appropiately included in the description of verbal morphology (313).

### 5.2 Gerund

The following forms are members of the gerund category in Yali.


The gerund morpheme which follows the verb root, is uk; it takes the place of the root final vowel in verb classes $V$ and VII. Preceding the gerund morpheme the class IV root final $t$ is replaced by $\underline{b}$; a similar replacement of verb root final $\underline{t}$ by $\underline{b}$ preceding a morpheme which has initial $\underline{u}$ was found in other categories too (314).
Gerund allomorph o is found following verb roots which are members of class VI and the roots la and na of class VIII. Gerund allomorph zero is found with two roots which are members of class VIII: waha and at. In this category these verbs show allomorph roots wam and am respectively. This analysis fits in with
the remarks on 3 p hortative morphemes (315)
Formally speaking, there is an interesting parallel between members of the gerund category and 1 pp forms of the hortative category: generally they are homophonous, except for those gerund forms which have allomorphs. The gerund forms which have zero allomorphs have the same shape as the allomorph roots found in corresponding 1 pp hortative forms (316).
This formal parallellism might be a good reason to assume a common origin of the forms mentioned. In the past the gerund forms might consequently have been characterized by the information that 1 pp is the actor; we found a similar development suggested by members of the intentional aspect category (317).

Gerund forms are semantically characterized by the information that the action meant in the verb root is potentional; generally they imply the information that a judgement is pronounced on the desirability of the action.

Gerund forms consequently are found very of ten in combination with words which express evaluation or emotional attitude. I already mentioned the occurrence of the gerund in prohibitive statements (318), e.g.
wabuk_ fug - "do not kilI"

Preceding the words cited in section 3.3 .3 sub 5 gerund forms are frequently found, e.g.

```
baluk nambit - "I do not like to cut"
wao hakol - "you sg. are afraid to take"
```


### 5.2.1 Comparison

Described under the heads "objective infinitive" and "potential gerund" (319) we find Dani forms which are comparable to the members of the Yali gerund category in form and meaning. The category is formally characterized by "aspect-morpheme $\underline{u}$, following the root morpheme" (320). This analysis holds also for gerund forms of vowel final roots, which Van der Stap describes as members of the "secondary objective infinitive category", at least if we take the
a in his "aspect-morpheme au" as the verb root final vowel (321). Some gerund forms of primary verbs having a root final vowel are given by Bromley; except for some root final a verbs, where we must notice a gerund allomorph zero, most of them show the usual gerund morpheme u (322).
As for the semantic implications of the "objective infinitive" or "potential gerund" category in Dani, these are similar to those found in Yali. The Dani forms "are used virtually only to denote an inclination or disinclination, ability or disability" to perform an action (323) while "referring to events as potentional, with no contrast of person or number of the subject", and commonly occurring "preceding the mental state terms na'yt (my dislike"), najok ("my fear"), nekkaly (my embarrassment) and the like" (324).

Like their counterparts in Yali do, gerund forms in Dani generally are homophonous with the 1 pp immediate hortatives. The development of the 1 pp hortatives in Dani and Yali can be raised again here to explain the difference between the morphemes which mark gerund in the two languages: i.e. uk (Yali) vs. $\underline{u}$ (Dani) (325).

Our conclusion can be that there is a firm relationship between the gerund categories in Yali and Dani with respect to both formal and semantic characteristics.

For the sake of completeness I mention here a category in Dani which is labelled "voluntative aspect category" by Van der Stap (326) and analytically named "potential gerund + predictive" by Bromley (327). I include this category in the chapter on gerund forms, since Bromley analyses its members as consisting of "potential gerund" followed by the "predictive suffix sak"; Van dex Stap simply takes the whole usak element, in forms such as isasusak (root isas), jagulusak (root jagul)etc., as the aspect morpheme marking the category. This category refers "to events considexed as possible, probable or desirable" (328) and informs us that the actor "is inclined to perform the action of the root-morpheme" (329). I did not find any forms in Abenaho Yali which resemble the members
of this Dani category, and at first was unable to discover an element comparable with sak anywhere in Yali morphology. However, in the Angguruk dialect of Yali the gerund is found also preceding a clitic teg/reg; this combination implies about the same meaning as the category mentioned in Dani (330). Since teg/reg formally is comparabie with sak, it seems probable that Dani in historical times has progressed in such a way that a clitic became a suffix, while Abenaho Yali lost the clitic, and provided for the meaning of the combination found in Angguruk and the category in Dani by a special syntactical arrangement of words which are members of other categories (331).

### 5.3 Perfect participle

The following forms are some members of the perfect participle category in Yali:

| Class I Class II Class III Class IV | Class V | Class VI |  |  |
| :--- | :--- | :--- | :--- | :--- |
| root bal root menen root kolap root yat | rootsV root wa |  |  |  |
| baltug menentug kolaplug | yatlug | sulug | walug |  |
| Class VII | mag |  |  |  |


| root laha | root la | rootwaha | root na | root at |
| :--- | :--- | :--- | :--- | :--- |
| lahalug | lalug | watlug | nalug | atlug |

The perfect participle morpheme is lug following the verb root. Roots which are members of verb class I and II, i.e. those having final 1 or $\underline{n}$, are followed by allomorph tug; this replacement of 1 by $t$ in morphemes following members of these verb classes is a phenomenon that we have seen several times already (332).

The root final $V$ of verb class $V$ members harmonizes with $\mathfrak{a}$ of the following morpheme.

The verb waha, member of Class VIII, has allomorph root wat in this category. The perfect participle category, the members of which are found as the final word of a dependent clause, is characterized by the information that the action meant in the verb root is completed,
and that the same actor is proceedins with another action referred to in a following verb form in the sentence; this other action is often a kind of motion. The two or more actions can also be found in a reversedorder: a motive action meant in a perfect participle form followed by another non-motive action, meant in a following verb form in the sentence. The implication that the action meant in the perfect participle form is completed, and the fact that a motive action is a link in a sequence of actions referred to in the verb forms in a sentence, thus are the main characteristics of this category.

Some members of the category have specialized meanings and/or a certain syntactical valence:
ulug (root V), marking - among others - the end of a direct speech part of a sentence
halug (root ha), found at the end of a subclause, meaning "if".
walug (root wa), preceding a verb of motion, meaning "with". umbulug (root VmbV), preceding a verb of motion, meaning "without".

### 5.3.1 Comparison

Forms in Dani which are comparable with Yali perfect participle forms are members of a category which Van der Stap names "the category of the detached active past participle" (333). This category is formally characterized by "tense-morpheme yluk following the root morpheme, whereas the phoneme $y$ of yluk is dropped after root morpheme final s" (334). The"secondary category of the detached active past participle", while showing the same semantic features as the mentioned one, is characterized formally by "tense morpheme alok following the voice morpheme" (335). When we consider the a $a$ alok to be a verb root final vowel as in other cases, and in noncompound, i.e. simple verbs (336), the element lok can be taken as the participle allomorph following final vowel roots. This is the way Bromley analyses the perfect participle categrory. He finds, besides the morpheme iluk, which is found following verb roots which end in $n$, 1 or $p$, the allomorphs luk after roots which end in other stops, lok following final a roots, and lyk in the participle ybk (root i) (337). It is interesting to note that following one of the
verb root finals $\underline{n}$ or $\underline{1}$, the morpheme initial 1 is replaced by $t$ in Yali or preceeded by $i$ in Dani in this category in the same way as this is done in the irrealis category. We find the analogical processes in both languages (338).

As for the meaning of this category, Van der Stap notes that it is semantically characterized "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 role in the main clause" (339). The remark on this syntactical implication probably is made because of the fact that the action referred to in the main clause generally is an act of motion (340). This point is stressed by Bromley, who states that the perfect participle forms "refer to events in relationship to other events, particularly when those other events are events of motion"; the forms "refer to events which are coterminous with the motion event referred to in the following motion verb" or they "refer to events completed before the motion referred to in the following verb" (341). In this latter case the action referred to in the participle does not presuppose simultaneous motion; after comparison with Yali data $I$ wonder if even in the first case to speak of an event "coterminous with the motion" is a proper way of indicating the meaning of this participle (342). Notwithstanding this question the similarity of semantical characteristics of the category in Dani and Yali is striking.

Our conclusion, consequently, is that formally and semantically the category of the perfect participle in both languages shows almost identical features. In Dani as well, some members of the category are found with specialized meaning: ylvk -"having said"; halok - "if" (having perceived); wolok - "carrying" (343).

## 

The following forms are some members of the category of the iterative participle:

| Class I | Class II | Class III | Class IV | Class V | Class VI |
| :---: | :---: | :---: | :---: | :---: | :---: |
| root bal | root menen | root kolap | root yat | root sV | root wa |
| baleheg | meneneheg | kolabeheg | yareheg | seheg | weheg |
| Class VII |  | Class VIII |  |  |  |
| root laha | root la | root waha | root na | root at |  |
| lahakeg | 1aheg | wahegr | nenggeg | aheg |  |

This category is formally characterized by the morpheme eheg following the verb root. In the vowel root final classes the root vowel is dropped preceding the morpheme.

The class VII verbs show partioiple allomorph keg which follows the unchanged root; the same keg is found following the allomorph root nVn of the verb na in this category.
The three other members of class VIII have participle allomorph heg following the verb root 3 la and allomorph roots wa and $a$ of the verbs waha and at respectively.

There is an interesting formal parallel between forms of the iterative participle category and members of the first past tense category, as far as the tense morpheme concerns:

| Iterative participle morpheme | First past tense morpheme |
| :---: | :---: |
| following members of classes IIIV: eheg | Vh |
| following members of classes $V-V I$ : eheg | root final is dropped Vh |
| following members of class VII keg | $\underline{k}$ |
| following members of class VIII: |  |
| $\text { " root:la } \left.r r ~ \frac{\text { la }}{\frac{\text { waha }}{\text { at }}} \begin{array}{ccc} \underline{\text { allomph }} \end{array}\right\} \text { heg }$ | $\left.\begin{array}{l} \frac{1 a}{w a} \\ \underline{a} \end{array}\right\} \underline{h}$ |
| " root na $\quad$ " nVn keg | $\underline{n V n} \mathrm{k}$ |

The categoric meaning of the iterative participle forms is that they indicate the repetition by any actor of the action referred to in the verb root, e.g.:
orom nengege suruk apag (sweet-potato eating they-did) "they ate continually".

The iterative participle forms which occur as the final word of a dependent clause are generally followed, although not always immediately: by a form of the verb SV which means "to do". Members of this category are also frequently used - not followed by a form of sV in these cases - in connection with the negation word eleg, meaning "not", and than indicate that the action meant in the verb root is by no means done by the actors indicated in a following $v \in r b$ form in the sentence, e.g.: e_baleheg_eleg wahesa (wood cutting not they-came) "they came without cutting any wood".

### 5.4.1 Comparison

The iterative participle category in Dani mentioned by Bromley (344) is semantically characterized by the same features as its Yali counterpart, including the frequent occurrence of its members preceding the "negative participle" lek, which is cognate with Yali
eleg.
The Dani category is formally characterized by morpheme yk following the verb root. Bromley considers yk to be a portmanteau, which marks both iteration and factive mode. In Dani the forms which show vowel final roots have no allomorph suffixes generally: e.g.

| hyyk (Dani) | heheg | (Yali) | root ha |
| :--- | ---: | :---: | :--- |
| yyk | eheg | $"$ | root u or i |
| layk | " | laheg | $"$ |
| wayk | " | waheg | $"$ |

Van der Stap does not mention a category such as described above for his dialect. It might be possible that he has taken members of this category together with other forms under the one head of "durative aspect"category. In Dani at least these categories show homophonous morphemes if preceded by consonant final roots (345). One could raise the question of whether the Dani morpheme yk or its Yali counterpart eheg is closer to the form from which they both originated. The Dani form nykkyk, cf. Yaii nenggeg, seems to indicate that Yali should be given this credit: element kyk corresponds with keg and still shows two velar stops instead of the one found in the morpheme normally (347).

### 5.5 Durative participie

The following forms are some members of the category of the durative participle in Yali:

| Class I | Class_II | Class III | Class IV Class V | Class VI |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| root bal | root menen root kolap root yat root sV rootha |  |  |  |  |
| baltil | menentil | kolabil | yatil | sil | hil |
| Class VII | Class VIII |  |  |  |  |


| root noho root na | root at |  |
| :--- | :--- | :--- |
| nohil | nil | atil |

The category is formally characterized by morpheme il, following the verb root, and, if the verb root final is a vowel, replacing this vowel.

Allomoxph/dily is found if following roots which are members of classes I, II, IV (and class VIII member at), i.e. root with final $\underline{\underline{l}}, \underline{n}$ or $\underline{t}$.
Roots of some verbs have no corresponding durative participle forms; they usually mean some kind of motion.
The category is semantically characterized by the information that the actor indicated in a following form of a verb of motion in the same sentence is continuously occupied with the action designated by the verb root. This connection with a verb of motion apparently causes the absence of durative forms of the motion verbs themselves. As a special member of this category we can consider the form wilil, which apparently has a reduplicated morpheme; this formal peculiarity corresponds with a special syntactical status of the form (348).
5.5.1 Comparison

As far as semantics are concerned, forms in Dani which are comparable with members of the Yali durative participle category, are members of the "durative aspect" or "basic participle" category (349).

Forms of the durative aspect category are formally characterized by "the aspect morpheme yk following the root-morpheme; with verbs having root morpheme final $\underline{s}$, this $s$ is replaced by $\underline{t "}^{\prime \prime}$ (350). On the existence of "durative aspect forms in secondary categories" Van der Stap hardly informs us (351); inasmuch as "secondary categories" have as their members forms of verbs with vowel final roots, however, Bromley completes this information with the statement that his basic participle forms show morpheme lyk when following vowel final roots (352), e.g. ylyk (root V). This explains forms offered by Van der Stap, e.g. hythylyk and lylyk.

Comparing Yali and Dani data, we have to state that their durative participle forms, although semantically characterized by the same information "that an actor is continuously occupied with the activity of the root-morpheme" (353), are not identical on the formal side.

Noteworthy, however, is the fact that in Yali some isolated words are found which directly remind us of the Dani durative participle forms. They might be survivals from a time when Yali and Dani showed more formal correspondence with respect to their durative participle morphemes (354).

### 5.6 Resultative participle

The following forms are members of the category of the resultative participle in Yali.

| Class I | Class II | Class III | Class IV | Class V |
| :--- | :--- | :--- | :--- | :--- |
| root bal | root menen root kolap rootwat | root SV |  |  |
| baleg | meneneg | kolabeg | wareg | seg |

Forms like these are characterized by morpheme eg following the verb root. A group of verbs has resultative participle forms which show the same semantical characteristics as the abo'e ones, but has a corresponding formal element which is not identical with eg. Instead of a root followed by eg, we find e.g. forms such as:

| yaho | root | yat |
| :--- | ---: | :--- |
| esoho | $"$ | eset |
| endoho | $"$ | endet |
| maho | $"$ | mat |
| weraho | $"$ | werat |

As these examples show, the roots which are followed by the resultativeparticiple allomorph are members of the class IV group of final t verbs. The allomorph following them is ho, which replaces the root final $t$; if the vowel in the final syllable of the root is $e$, it harmonizes with $o$ in the allomorph.
I am not sure exactly what the reason is for this hardly predictable occurrence of allomorphs with this group of verbs. It seems to indicate that in past times these verbs were not members of the root final $t$ class proper, but constituted a class of their own of h final roots. This assumption is suggested by the occurrence of an allomorph root ending in $\underline{h}$, with exactly this group of verbs, if it is found as the first component of a compound verb form (355). Except for the irregularities mentioned, we find blockading forms in this category, e.g.:

| wereg | root welatuk |  |
| :--- | ---: | :--- |
| yihik | $"$ yihi |  |
| wirig | $"$ | wit |
| nonggo | $"$ | na |

Roots of verbs which mean some kind of motion have no corresponding resultative participle forms.
The resultative participle category is semantically characterized by the information that an object, whether implied or explicitly mentioned, is in the state which results from the action mentioned in the verb root. As can be understood, the resultative participle is generally found as an adjective, e.g.:
o faleg (root fal "build")"a built house";
sok lareg (root lat "close")"a shut door"'

### 5.6.1 Comparison

Members of "the 1 st category of the resultative aspect" in Dani are comparable with the Yali resultative participle forms. They are characterized formally by
"aspect-morpheme ek following the root-morpheme, in which the final $\mathfrak{s}$, when occurring, is replaced by $\underline{t}^{\prime \prime}$ (356). The semantic feature corresponding with ek in this category is the same as the characteristic found in its Yali counterpart. In the non-productive "second resultative aspect category" we find an allomorph, the "aspect morpheme ko", which follows the "root-morpheme, the final consonant of which is dropped" (358). This final consonant is $\underline{s}$, since this category has as its members forms of "a handful of verbs having root-morpheme-final sequence as ". The formal features shown in these forms remind us of the group of $t$ final verbs in Yali, which have an allomorph of the resultative participle; moreover, the verbs which show these features in Yali generally have cognates in Dani, which show similar peculiarities; e.g.

Dani

| mako | $(r o o t ~ m a s)$ |
| :--- | :--- |
| jako | $(r o o t ~ j a s)$ |
| idako | $(r o o t ~ i d a s)$ |

Yali

"identical to the manner participle" to be described in section 5.7.1 (361); this statement is not valid for Yali, however. In Dani finally, several blockading forms are found in this category, as e.g. muku "felled", uku"netted", etc. (cf. roots muk and yk, cognate with Yali mug and yihi).
As stated before, the tesultative aspect" or "past participle" forms agree with members of the Yali resultative participle category with respect to semantic characteristics; this agreement is also demonstrated by Bromley's statement, that they "refer ... to the state resultant from the process marked in the verb root" (362).

Although the following remark is about forms which in fact are also members of a compound category, I include it here because of their formal relationship with resultative participle forms. Actually, they do not constitute a special problem in Yali, but comparable forms in Dani show a verb root as second component, which otherwise has disappeared from that language. examples of this Dani group of forms are:

```
tek-sek "broken off"(cf. Yali root degmsV)
si_tek "folded" (cf. Yali root si_sV)
```

Bromley remarks that such "forms of incurred process secondary verbs" are related to the past participle forms and "consist of the verb root plus the clitic -sek after consonant final roots, -tek after vowel final roots" (363). This "clitic-sek", while unidentifiable in Dani, reveals its origin in comparative analysis: its cognate seg in Yali is a normal resultative participle of the verb sV; this verb is often found as second component in compound verbs in Yali, but apparently no longer in Dani (364); hence the lonely stapus of sek as a clitic in Dani.

### 5.7 Adverbial participle

The following forms are examples of members of the adverbial participle category:


Forms such as these show adverbial participle morpheme oko following a verb root which ends in a consonant. If following other roots, either the same oko or allomorph ko is found. This is especially the case with some members of this category which correspond with verb roots ending in $t$. The same group was found to show up with peculiar forms in the preceding sections;adverbial participles which are members of this group are e.g.

$$
\begin{array}{ll}
\text { yako } & \text { (cf. root yat } \\
\text { muko } & \text { (cf. root mut) } \\
\text { werako } & \text { (cf. root werat) }
\end{array}
$$

We find hexe, as stated before, the participle allomorph ko following the verb root, the final $t$ of which is dropped. Several verbs do not show corresponding adverbial participle forms. This is because the meaning of the category rules out as possible members the verbs of motion and other intransitive verbs. The category of the adverbial participle is characterized semantically by the information that the action meant in the participle is finished and is the introduction to another action meant in the next verb form in the sentence; both actor and object are the same in the participle and the next verb form. With relation to identity of actor, the adverbial participle is contrastive with the resultative participle, e.g.

$$
\begin{aligned}
& \text { e kahaloko og-herehek (wood split he-gave-to-you) } \\
& \text { "he split the piece of wood and gave } \\
& \text { it to you". } \\
& \text { cf. ekahalegog-herehek - "he gave the split wood to you" (when } \\
& \text { and by whom the splitting was done } \\
& \text { is not indicated) }
\end{aligned}
$$

### 5.7.1 Comparison

Van der Stap describes the members of the "first bound active past participle category" as characterized formally by tense morpheme hoko following the root-morpheme" and semantically by the same features which I mentioned for the adverbial participle forms in Yali (365). That is the case also with members of the "secondary category of the first bound active past participles", a category which is formally characterized "by affixation of tensemorpheme oko to the voice-morpheme" (366). In this description "voice-morpheme" means the second component root of a compound verb, as mentioned previously (367). Thus we find forms such as:

```
    wetathoko (root wetak)
    balhoko (root bal)
and isakhoko (root isas + h),
```

the first showing morpheme hoko, the last oko.
Besides the forms mentioned, we find others which are characterized semantically by the same features, but because of formal peculiarities are classified as "the 2nd bound active past participle category". This category is non-productive, and has as its members forms of verbs "having root-morpheme-finally the sequence as"; it is"in competition or in suppletion" with the forms mentioned aove which show morpheme hoko. The forms of the category under discussion now, e.g. isasoko or isakasoko (root isas), are characterized formally "by the element soko or kasoko (as a free variant) following the rootmorpheme, the final consonant of which is dropped" (368).

To complete this series of related categories, one more must be mentioned, because of its formal similarity to the normal "first bound active past participle category". It is named the "pseudocausative voice" category; it shows "formally an adjective or an adverb to which is affixed the formal element hoko" (369).
A check on members of this category indeed indicates that primary word stress is on the syllable preceding hoko. (e.g. abikhoko $=$ abik-hoko).

Clear though the description of these categories might seem, it leaves some questions unanswered. The first is what analysis should be given of apparentiy related forms which do not fit in with the above descriptions, e.g.

```
epetoko (root epes "to think")
huwaloko (root huwal "to open")
gusoko (root gus "to break") (e.g. sweet potatoes) (370).
```

These forms show morpheme oko following the verb root. As such they come up to the analysis given by Bromley of his "manner paticiple"forms. These forms show a root followed by oko in most cases; if a root ends in 3 k , it is followed by participle allomorph ㅇ (371). In the latter case the resultant forms are identical to the special group of resultative participles mentioned in the preceding section, e.g. isako.
Apparently, the dialects described by Bromley and Van der Stap are not fully identical on this point. Since such forms as those which I noted above - epetoko etc. -, are also from Mugogo, one feels inclined to consider oko as the element corresponding with the meaning of adverbial - or manner - participle. Whenever h precedes oko, resulting in element hoko, we probably have to think of it as an adverbial participle marker in Mugogo also, along with oko, which originally had that function.
The very element hoko, as mentioned, is found with some adverbs, but also, in Bromley's terms, with"incurred process secondary verbs" which refer to the manner "in which the event referred to in the superordinate verb is performed" (372). One might feel inclined to equate these "incurred process secondary verb" forms, -e.g. bal-hoko-, with the members of the "first bound active past participle category" - e.g. balhoko -, but as it seems, the latter forms have word final accent in Mugogo (373). Besides this, hoko, which is found following consonant final roots, has an allomorph soko, if following roots which have a final diphthong ending in $\underline{i}$, and toko if following vowel final roots. hoko and its allomorphs are cognate with Yali soho - in words such as dambuk-soho "together", obog-soho "all" - which is an adverbial clitic. It is apparently related to the verb root SV (374).

Our final conclusion is that Dani and Yali have an adverbial participle marked with oko in most cases; the semantical characteristic of these forms in the two languages is identical. This characteristic is, to quote Bromley, the reference "to an event regarded as a preliminary part or stage of a larger event, where the terminal stage of the same larger event is referred to in a superordinate verb" (375).

## $5.8 \quad$ Motion stem

The following forms in Yali are some members of a category which has a special status; its members are found as a stem which constitutes the first component of a composite verb (376).

| Class_I | Class II Class III | Class IV | Clas. V | 'Class VI |
| :---: | :---: | :---: | :---: | :---: |
| root bal | root menen root belap | root yat | root SV | root wa, ha |
| balik | menenik belabik | yarik | sik | wak, ha |
| Class VII | Class VIII |  |  |  |
| root laha | root na root at |  |  |  |
| Iahik | na arik |  |  |  |

This category is formally characterized by morpheme ik following the verb root and replacing its final vowel - if there is one. If following members of a root final $\underline{a}$ verb, we find allomorphs of the motion stem morpheme: zero, e.g. ha (root ha), and also na (root na), which is classified normally as a class VIII member (377). No motion stems are found of the verbs 1 a and waha; the reason might be that these verbs are used as general verbs of motion and as such cannot be qualified by another verb of motion. The motion stem category is semantically characterized by the information that the action referred to in the verb root is part of an event which implies movement; this movement is referred to in the next verb form in the sentence. I will come back to this combination of motion stem and verb of motion in a later chapter (378). The motion stem might be genetically related to the immediate hortative. Most of its members are homophonous with 1 ps hortative (379).

### 5.8.1

Forms in Dani which are comparable to the described members of the motion stem category in Yali are found in Van der Stap's study as the first components in the members of several categories of "composite verbs". For the sake of clarity I will focus in this chapter on only the first components; in a later one due attention will be given to the composite verb forms as a whole. The "category of the composite verbs" shows a verb stem as the first component: e.g. hymasi-wesin, wakani-lan etc. It is formally characterized by morpheme $i$ following the verb root in those cases where the second component is a form of a verb of motion (380) As members of the "secondary category of the composite verb" we find forms of which the verb stem as first component is formally characterized by a following the "voice-morpheme" and the verb root (381), e.g. wokhysa-wako. Recalling the fact that "secondary categories" have as their members among others forms of verbs which have root final a, we might say as well that the verb stem in this category is formally characterized by a zero morpheme following the verb root; recall that we found zero morpheme in motion stem forms of some root final a verbs in Yali as well.

Finally, forms homophonous with the stem showing morpheme $i$ as described above are recognizable in the so-called "contingent aspect category" (382). Van der Stap analyses members of this category, e.g. gakalinoko, balinoko, as being formally characterized "by the aspect morpheme oko following the infinitive form". This analysis, however, is subject to objections, because apart from the fact that there is primary word accent on the i preceding the element noko (383), careful listening shows that there is a border indicated by a minimal pause between stressed $\underset{\underline{i}}{ }$ and the $\underline{n}$ of noko (i.e. balinoko $=$ bali-noko). This sets noko apart as a clitic, meaning "that there is a chance or risk or danger that the actor will achieve the action of the root-morpheme" (384). Noko evidently is related to the preventive particle no in Yali (385), which is often found following a gerund form. That some members of the "contingent aspect category" have instead of i a
free variant ue.g. balinoko vs. balunoko, is explained by the fact that $\underline{u}$ is the gerund marker in Dani (386); it is not necessary to assume "an infinitive-morpheme un besides in" "preceding aspect morpheme oko". Preceding noko one finds in Dani apparently either the motion stem or the gerund. Also in members of the "secondary contingent aspect category" (387) the clitic is set apart by word accent (i.e. watanoko $=$ wata-noko) ; the remaining form ending in a is analysable as the verb stem, i.e. verb root with zero morpheme, analogous with the stems found in the "secondary category of the composite verbs" as mentioned above. In analyzing the forms that were grouped by Van der Stap as members of the several "composite verb" categories, Bromley starts with the recognition of a "potential stem" which is "identical in form to the first person singular hortative form minus the subject indicator $\underline{k}$ (388).
Understandably, the consonant final roots and the vowel final rods accordingly show up with contrastive stems, ending in $\underset{\underline{i}}{ }$ or $\mathfrak{a}$ respectively. The same conclusion was reached by Van der Stap in his investigation of the forms he offered.
As to the semantical implications of this category, Bromley mentions that his potential stem never occurs "by itself as an independent or sentence-final verb, but rather occurs in two main environments: 1. as a stem preceding verbs of directional motion, and
2. with the clitic-noko in the portentive category" (389). This "portentive category" - the same as Van der Stap's "contingent aspect category" - refers "to events as undesirable but liable to occur and therefore meriting prevention if possible " (390). The semantic characteristic of desired prevention is accentuated by Van der Stap (391).

Concluding, we find in both Dani and Yali a category of verb stems formally characterized by $\underset{i k}{ }$, with allomorphs $k$ or zero, following the verb root in Yali; and $\underset{i}{ }$, with allomorph zero following the verb root in Dani. In both languages the stems are characterized by the information that the action meant is part of a larger event which implies a movement, referred to in a verb of motion, which follows in the same sentence.

The same stem, but sometimes the gerund instead, can be followed by clitic noko in Dani. The semantical characteristics of the resultant forms - members of the contingent aspect or portentive category - should be seen as corresponding with the clitic, not with the stem (392).

### 5.9 Durative stem

The following forms are some members of the durative stem category:

| Class I | Class II | Class III | Class IV | Class V | Class VI |
| :---: | :---: | :---: | :---: | :---: | :---: |
| root bal | root menen | root kolap | root yat | root SV | root wa |
| baltuk | menentuk | kolaptuk | yatuk | suruk | waruk |
| Class VII |  |  | lass VIII |  |  |


| root laha | root la root waha root na root at |  |  |
| :--- | :--- | :--- | :--- |
| laharuk | laruk | waharuk | naruk atuk |

This category is characterized formally by morpheme /duk/ following the verb root. In forms such as yatuk (class IV) and atuk (class VIII) the symbol $\pm$ represents the geminate cluster of root final $t$ and morpheme initial/d/. Semantically the durative stem implies the information that the action referred to in the verb root is factive and is of some duration. Members of the category are found in several syntactical contexts (393).

### 5.9.1 Comparison

Bromley mentions a "factive subordinate stem" in Dani which occurs with contrast of singular and plural number of the subject (394). When referring to a singular subject, the members of this category are "homophonous with the 3 ps simple factive form" (395); when referring to plural subject, they are "homophonous with the simpie prohibitive form minus the markers of subject categories" (396). Corresponding with e.g. root wat we find the factive subordinate stem: wathe referring to sg. actor, and
wathy referring to pl. actor.

The syntactical contexts in which this stem is found are interesting from a comparative point of view, since comparable arrangements of forms in Yali always have the durative sten in the position where Dani has the factive subordinate stem.
An important difference between the stems in the two languages is the absence of singular vs. plural contrast in the Yali durative stem forms,although such contrast otherwise is not uncommon. Besides the factive subordinate stem, which is not mentioned by Van der Stap, there is another category in Dani, the members of which are comparable with the durative stem forms in Yali. I refer to the first component of those "composite verbs" which have a form of the verb lokon as second component. Although Van der Stap includes these first components with those mentioned in the precedingsection, the morpheme marking them, hy, is clearly distinct from the morpheme of those other stems. The forms "with stem in hy denote that the actor continues the action of the first component" (398). Since Yali also has composite verbs showing as second component a form of the verb welat, which has the same meaning as the Dani lokon, and as first component the durative stem, there is reason to consider the forms in Dani which are characterized by hy following the verb root as members of a category on its own, i.e. the category of the durative stem (399). Moreover, all socalled "progressive aspect" categories in Dani show morpheme hy following the verb root (400).
Apparently the morpheme hy is the same as the "progressive aspect marker" hy mentioned by Bromley (401). In Yali the first component of progressive aspect forms is always the durative stem.

Our conclusion can be that marking of factive and durative stems is done in both Dani and Yali, but that the pattern of marking is non-congruent in the two languages. The dissimilarity of the respective morphemes /duk/ vs. hy and he/hv, on the one hand, and on the other hand the spreading of the meaning in Yali over two categories in Dani - at least in the dialect described by Bromley illustrate the skewing. This fact, however, does not necessarily exclude a common origin of the several stem categories (402).

The last remark applies as well to another category in Dani, to be mentioned here. I mean the category of the"idiosyncratic" or "abnormal continuative" aspect, for the members of which I did not find comparable forms in Yali. Van der Stap informs us that this category is fomally characterized by "aspect-morpheme ho following the root-morpheme (403) - e.g. in forms such as isatho (root isas), jagulho (root jagul) etc. -, or by "aspect-morpheme ikho following the root-morpheme" in the case of the "secondary idiosyncratic aspect category" (404) - e.g. in a form like jagulnysikho. In Bromley's analysis of such forms the h in ho and the $k$ in (i)kho are considered factive markers, following the verb root and followed by "abnormal continuative aspect marker ㅇ or ho'respectively, or by portmanteau $y$, which marks both "abnormal continuative aspect" and plural (405); the forms which have this portmateau are not mentioned by Van der Stap. The semantic characteristic of this category is "the information that the action is repeatedly performed as a personal habit, an idiosyncrasy, or an occupation" (406) ; or with Bromley's words members of this category refer "to events regarded as recurring over a period of time in a way which is unusual either because of a change in a cycle of activity or because of individual specialisation in contrast to the activity of others" (407).
As for the syntactical environment of the members of the category, the following remark made by Van der Stap should be noticed: "The only verb with which members of this category are used is welakasin to be, to exist." (408). This data connects this category with the Yali category of the durative stem again: the categoric meaning of the Dani forms is represented in Yali - at least if 3 p actor is meant - by the durative stem, whether or not followed by the adjunctive marker on (409), and sometimes in combination with a form of the verb welat, which is cognate with Dani welakasin (410). We find, consequently, that a common origin of both the "idiosyncratic aspect category" in Dani and the durative stem category in Yali can reasonably be assumed (411).

## 6. Compound verbs

### 6.1 Introduction

Besides the simple verb forms described in preceding chapters 4 and 5, compound verb forms are in Yali also found. Their components generally are:
A. a root of a simple verb - to be symbolized by $R$-, followed by
B. a form of a second verb.

Our attention will be focuses mainly on these second verb forms, which in many cases are marked for indirect object, reflexive voice or other subject-object relationships.
The remark made by Bromley for the Dani language applies to Yali as well:"These contrastive relationships [i.e. subject-object relationships] are indeed inseparably linked to the more narrowly labeled categories of reflexive and non-reflexive voice and comprise one of the more interesting features of Dani grammar, whereby relationships between verbs and personal objects, relationships that in many languages are signaled by prepositions or case endings, are marked by the occurrence of auxiliary verbs with object marking affixes" (412).
Not all of the "auxiliary verbs" i.e. those which I have termed second verbs, however, are marked in this way. Some of them indicate some kind of "voice", which will be specified in the sections dealing with them. It seems that Yali exhibits greater richness in the use of these "inner layer auxiliary verbs" than Dani does. In the use of the object marking "outer layer auxiliaries" Yali and Dani follow the same pattern.

As I have mentioned on page 16 , the accent in compound verbs is a border marker which separates the first component, i.e. the simple verb root, the final syllable of which is stressed, from the second component, i.e. the second verb form. If the compound form occurs in positions other than sentence-finally - e.g. at the end of a sub-clause - and is marked also by a third order morpheme, secondary word accent accompanies the primary accent on the first component final syllable, but this does not invalidate
the border-marking function of the primary accent. The two components of compound verb forms cannot be separated by the insertion of other words, as stated earlier.
The categories to ve described in this chapter are not of the same order as those described in preceding chapters 4 and 5. This means that in principle,members of the categories of compound verbs can be found with any of those other categories also, given the restrictions which will be mentioned in the following sections. Unless otherwise stated, I will deal in these sections not with complete forms, e.g. the morphemes which mark the categories described in ch. 4 and 5 , but only with the roots of compound verbs, i.e. a simple verb root followed by a second verb root (413).

## 

In the preceding section I mentioned that generally the first component of compound verbs is a simple verb root. In most cases this is just the same root as is found in the simple verb forms described in the preceding chapters of this study. Moreover, the choice of the roots which actually occur as first components of compound vexbs is almost exclusively restricted to members of the consonant final verb classes I-IV; this exclusivity depends on their lexical meaning. A group of verb roots which were classified as members of the $t$ final class in the preceding pages shows up with allomorphs, if they figure as the first component in compound verbs. It is exactly the same group which occurs with allomorph ho or ko in the resultative participle or adverbial participle category respectively (414).

The following examples illustrate this phenomenon:

```
root eset , if first component, is esag
root werat, if first component,is werag
root endet, if first component,is endag
root fat , if first component, is fag
root mut , if first component, is mug
```

These allomorph roots show $g$ instead of the normal root final $t$, and sometimes, but not predictably, have their root final syllable vowel replaced by another vowel.

Comparable first component roots are shown by some vowel final verbs:

```
root V , if first component, is yig
root wa, if first component,is og
root sV, if first component,is seg
```

Here we find also a final g, which follows the (sometimes modified) verb root. The roots remind us of resultative participle forms (415).

### 6.2.1 Comparison

Whereas the given roots in Yali are bound allomorphs in compound verbs, their cognates in Dani show only free variants of the root final $t$; such variants can be $k$, but also $p$ or 1 (416), e.g.

$$
\begin{aligned}
& \text { isat-hanin (root isat) or } \\
& \text { isak-hanin (root isat of. Yali eset) }
\end{aligned}
$$

Semantically, the allomorph roots in Yali and the unpredictable variants in Dani do not show any special feature not shown by other roots in compound verb forms.

### 6.3 Medial voice

Frequently in Yali compound verbs are found which show a form of at as the second component. The first component is either a verb root or an adjective. The following durative forms are examples of medial voice compounds:

```
bal-atuk (cf. root bal - "to cut') "to become cut"
war-atuk (cf. root wat - "to kill") "to die"
su-atuk (cf. adjective su - "bign) "to become big"
fano-atuk (cf. adjective fano - "good") "to become good"
wilib-atuk (cf. root wilip - "to drive out") "to go out"
endah-atuk (of. root endet -"to give birth") "to be born"
seh-atuk (cf. root \(S V-\) "to do') "to get in a certain state"
```

Formally the medial voice compound is characterized by a form of the verb at, following stressed $R$ ( $R$ standing for a verb root or an adjective). "A form of the verb at" in this formula can be any form of the verb at which is a member of a category described in chapters 4 and 5 .
Semantically the medial voice compound indicates that the actor marked in the at form incurs a process and gets into the state meant by $R$. If $R$ has a lexical meaning which is incompatible with the categoric meaning of the medial voice compound then of course it is not found as the first component. A root of a verb of motion for example, is never found as $R$.

## 

Whereas the Angguruk dialect of Yali has a form of the verb at as second compound in medial voice compounds - as the Abenaho dialect does -, it shows - unlike the Abenaho dialect but similar to Dani - a form of the verb lat (which is a member of the same verb class as at (417)) as second component in the progressive aspect composite verbs, to be treated later (418). With a view to the comparison of Yali and Dani medial voice compounds it is important to mention the occurrence of both roots, lat and at, in at least one Yali dialect as the second component in compound or composite verbs.

### 6.3.2 Comparison

For Dani a "medial voice category" is mentioned, which "entails the information that the actor gets into the state which is result of the action designated by the root-morpheme" (419). Van der Stap remarks that this category cannot be parallelled with the passive volce found in other languages, since "the originator of the action is utterly irrelevant" (420); this excludes for Dani the "combination of medial voice and intentional or voluntative aspect categories", generally speaking (421). This last remark is not valid for Yali; as I stated above, any form of at can be found in medial voice compounds, including intentional aspect forms.

The semantic similarities between medial voice compound and "medial voice category" are a sufficient base to compare them on the side of their formal characteristics. The "medial voice category" in Dani is characterized formally"by medial voice-morpheme las (with allomorphs 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 is $\underset{A}{ }$, or by $\underline{p}, \underline{t}, \underline{k}$ or $\dot{1}$ if the final consonant is $\underline{s}^{\prime \prime}$ (422). Van der Stap does not mention the important cut in the forms of the "medial voice category" which is made by the word accent; in Dani as well as in Yali, the final syllable of $R$ is stressed. This indicates the existence of two components also in the "medial voice category" and sets apart the "element la or las or whatever it may be" (423) as a second root on its own. The same conclusion is drawn by Bromley, who speaks on this subject of the "inner layer"auxiliary verb root lat (allomorph la), meaning "to incur a process and the resultant state" (424); Bromley also mentions the occurrence of another auxiliary of the same kind, root at (allomorph a), meaning "to become", incur a state" (425); this second "medial voice" second component occurs in those compounds where the $R$ of comparable forms in Yali is an adjective.

Summarizing this section: we find a medial voice compound in both Yali and Dani; the second component of this compound is a verb form, the root of which is at in Yali and lat (or at) in Dani (426).

The allomorph roots of the second component mentioned in the quotations from Van der Stap and Bromley are understandable as a reference to the verb class of which lat and at are members. Since I presented the different verb classes in the description of the simple verbs categories, there is no need to mention them again (427).

### 6.4 Reflexive voice

Compound verbs such as the following are frequently found in Yali:

```
bal-sa
endah-sa
wat=sa
yah=sa
duk-sa
```

They show as second component a form of the verb se, which is found to occur with most of the categories mentioned in chapters 4 and 5 . The verb sa is a normal member of the root final a class of verbs. The first component of the reflexive voice compound, having primary word stress on its final syllable, is a verb root or stem. The semantic characteristic of the reflexive voice compound is the information that subject and object are the same. Depending on the context in which the compound occurs and the lexical meaning of the verb, that object can be a direct or an indirect one, e.g.
bioh-soho wat-sihi - "by a fall I injured myself" (compound wat-sa)
it ap inanggom suon wat-sarukon - "the men who kill big pigs for themselves" (compound
wat-sa)

### 6.4.1 Comparison

The information given by Van der Stap on the occurrence of reflexive voice in Dani hardly enables us to find comparable forms. At one time the "curio" watan is mentioned "because this verb is perhaps the initiator of a new category" (428). It corresponds at least to the description of reflexive voice in Dani given by Bromley (429); there we find reflexive voice analysed as consisting of a verb root followed by a form of the verb ha (430), Whereas this second component ocours as a normal root final a verb in the different categories, the important difference with Yali forms is that the word stress of the whole form is on - or periaps shifted to - the final syllable of the second component.
So, except for the distribution of stress, we find reflexive voice in both Dani and Yali. The reflexive voice compound in Yali has as
its second componert a form of the verb sa; in Dani we find $R$ followed by a form corresponding with root ha (431).
Anticipating the discussion on the "energetic voice category" in Dani, I mention the possibility of that category being at least partly a reflexive voice category, though not recognized as such. Probably Dani formerly had a reflexive voice compound like those still found in Yali. This is suggested by the occurrence of primary accent word medially and the relatively easy recognizability of the formal feature which corresponds with the indication of reflexivity (432),

### 6.5 Non $n=\underline{=s p e q i f i c} \underset{=}{c}$ compound verbs

Besides the compound verbs already described, in Yali others are found whose second components are forms of the verbs ha, sV or $V$, which mean, if occurring as simple verbs: "to perceive", "to do" and "to say" respectively. Except for those including haruk, - where we often find a verb root as first constituent -, these non-specific compounds show as their first constituent either an R which cannot be related to any other word in the language, or an adjective. The choice of the denominator "non-specific" for the mentioned compounds is made becouse of the following considerations:
A. The compounds with second component gV or $V$ do not add much to the lexical meaning of the first component; the semantic role of the second component is to verbalize the first component. The compounds of this type are members of the root final $V$ (i.e. non-a ) class of verbs class $V$.

## Examples:

| are-sV | meaning"to coat" (cf. are-sa id. reflexive voice) |
| :---: | :---: |
| hu-sv | " "to open" (cf. hut-ha id. with 2nd object |
| ununu-sV | " "to go and grunt"(pig) marking root) |
| sup-sV | " "to burst" |
| sebe-V | " "to stoop" (cf. sebel - "to press down') |
| sub-V | " "to flop" |
| salkal-V | " "to meet" |
| herog- ${ }^{\text {d }}$ | " "to get filled" (cf. herog - "upwards") |

B. In the compounds with ha as second component some distinction can be made on semantic grounds:
B.1. those with a verb root as first component have as a semantic extra the information that the action is performed in an energetic way. As the ones mentioned below these compounds with ha are members of the root final a class of verbs (class VI).

## Examples:

fil-ha - "to push away" (cf. root fil - "to throw") heal-ha - "to open" (e.g. the sky) (cf. root heal - "to open" (by men)) sub-ha - "to spit"
B.2. A second group of compounds which show a form of ha as second component is characterized by the fact that it (still) preserves the meaning of ha "to perceive", as a simpie verb. Some of these compounds show a first component which is not otherwise found as a simple verb root; they denote a special kind or intensity of perceiving, e.g.
bik-ha - "to view"
yet-ha - "to see"
yenggah-ha - "to look and examine", "to realise"
Some others show as first component an $R$ which corresponds with the root of a simple verb, meaning some kind of directional movement, e.g.
belap - "to put down"
kolap - "to put into"
lahap - "to lift"
Compounds with ha having an R like these denote perception
in a certain direction, e.g.
balap-ha - "to look down (upon)"
kolap-ha - "to catch sight of"
lahap-ha - "to look up (at)"
B.3. Another group of compounds wit ha are hardly distinguish-
able from those mentioned in A; here, however, it is ha which functions as a verbalizer; e.g.
wal-ha - "to inch and pinch", "to create"
ilik-ha - "to rise" (e.g. the moon)

In cases where the meaning of compounds with ha implies reference to an object, it is made to 3 ps (434).

In principle, the way of making non specific compounds is productive; several of the kind mentioned in $A$ are noulr formed with non-Yali (i.e. Indonesian) first components, e.g. buka-sV - "to open [an airstrip]".

### 6.5.1 Gomparison

Among the "inner layer" auxiliary verbs in Dani Bromiey mentions (besides the "medial voice" second components) also the verb "-i", whichis homophonous with the "primary" vexb meaning "to say" (435). Since this verb is cognate with Yali $V$, we find the existence of compound verbs as mentioned above in A confirmed for Dani. We must note, that as in Yali, word stress in Dani is on the final syllable of the first compound. Although Van der Stap does not mention this type of compound, a word list of the Mugogo-dialect, which he describes, gives sufficient examples (436).
The situation with verbs showing ha forms as second component in Dani is more difficult to describe than the preceding one. As I have indicated in section 6.4.1, reflexive voice in Dani is marked by forms of the verb ha following a simple verb root; it occurs however, without the characteristic distribution of stress which accompanies reflexive voice forms in Yali. It seems probable to me that some of the forms coined "energetic voice category" members by Van der Stap (437) are in fact members of the reflexive voice category, i.e. forms of those verbs which have word stress on the final syllable (438). The formal equipment of these verbs is an argument in favor of this suggestion, as well as the fact that if an action is not marked by object-morphemes, the idea of reflexivity is implied; but since Van der Stap does not make explicit this connotation, I am unable to decide whether the suggestion is fully warranted. Several of the forms, however, brought forward by Van der Stap under the head "energetic voice category" show the distribution of stress which is characteristic for compound verbs, i.e. on the final syllable of the first component, although Van der Stap, as usual, does not symbolize or mention this phenomenon, e.g.
wetat-haovok instead of wetathaovok.
Given the occurrence of these forms, the main question is whether we have to consider them members of the verb group, which shows the auxiliary ha as second component and indicates a locative relationship between action and object (439), or as members of a separate group of compounds. Taking in view Yali morphology and considering the definitions given by Van der Stap of his "energetic voice category" which is characterized semantically by the information "that the action is performed energetically, or that the action is caused to happen" (440), I conclude that Dani also has a compound showing forms of the verb ha as its second component. As will have become clear from the above description, I object to the analysis of Van der Stap that this compound (or "energetic voice category" in his terminology) is characterized on the formal side by "the energetic voice-morpheme $\underline{h}$ following the (often modified) root-morpheme" (441); word-stress occurring before the h indicates that $h$ is the first phoneme of a second component, i.e. part of the root ha. This analysis is supported by the occurrence of a major group of verbs in Dani which on the one hand show the phonological criterion ofstressmedially, and on the other hand are characterized generally by features mentioned in the description of nonspecific compounds in Yali. They are labelled as members of the "pseudo-energetic voice" by Van der Stap, since "the plain verbs from which they were derived were never found" (442); this statement means that $R$ in compounds such as :

```
lyt-han - "to pull"(cf. Yali limsV)
wal_han -"to measure", etc. (cf. Yali wal_ha)
```

does not correspond with any root of a simple verb. As I have mentioned above, several Yali non-specific compounds show the same feature. As is clear from the examples of "pseudo-energetic voice" verbs given by Van der Stap, they all show ha as second component. In conclusion, we can state that only compounds showing sV as second component have no counterparts in Dani; this is understandable, since the simple verb sV does not have a cognate in Dani either. Yali compounds with $s V$ instead generally show ha or $i$ as second component in Dani.

### 6.6 The causative stem

Generally preceding a member of the fourth series of object marking roots as second component, stems such as the following are found as first components:


These stems show a causative morpheme Vp , allomorph $p$, following the verb root; in this formula $\mathbb{I}$ stands for a vowel which is generally $e$ if the vowel in the preceding syllable is $a$ or $e$, and $i$ if the vowel in the preceding syllable is $\underset{i}{ }$, $\underline{u}$ or o. The stem sep mentioned above is often found following an adjective or first component of compound verbs (444). The semantic features indicated in these cases, are the same as indicated in the causative stems already mentioned, e.g.
suontep - (cf. adj. su "big", followed by on)
werehontep - (cf. part. wereg "being", followed by on)
fanggohsep - (cf. first component fanggog "near")
Sometimes an adjective is immediately followed by the causative morpheme, e.g.

$$
\begin{aligned}
& \text { ilukep - (cf. adj. iluk "living, awake") } \\
& \text { elehep - (cf. adj. eleg "not") }
\end{aligned}
$$

As stated before, the causative stem is the first component in a compound verb. As such, primary word stress is on the syllable ending with the causative morpheme. Semantically, the compounds
with these stems indicate that the object referred to in the second component is caused by the actor indicated in the second component to be in the state or process which is the result of the action meant in the verb root present in the first component.

### 6.6.1 $\quad$ Comparison

Van der Stap mentions the "causative voice category" in Dani, which is characterized formally by "causative voice-morpheme th following root-morpheme final vowel, or $\underline{V}^{\mathrm{h}}$ th following root-mor-pheme-final consonant (in which $\underline{V}^{\text {h }}$ represents a vowel harmonising with the last preceding vowel)" (445).
We have to take notice that the "root-morphemes" under discussion are non-verbal, namely adjectives and adverbs, e.g.

```
elukut-han - (cf, eluk "awake")
apulokot-han - (cf. apulok "moving")
```

As I mentioned aove, Yali also has adjectives followed by the causative stem morpheme as the first component verb forms; however, verb roots often occur as well in the causative stems.

The analysis offered by Van der Stap is worth a remark. As in other cases, he leaves out of discussion the fact that word stress in the "causative voice category" is not on the final syllable of the form; a check proved that it is on the syllable ending with the $t$ of the "causative voice-morpheme". i.e.

$$
\begin{aligned}
& \text { gokothan }=\text { gokot-han } \\
& \text { lekethan }=\text { leket-han }
\end{aligned}
$$

This remarkable distribution of stress indicates the compound character of the members of the "causative voice category". Consequently, the $h$, which is considered part of the "causative voicemorpheme" by Van der Stap, can better be viewed as the initial consonant of the second component of the compound, i.e. the $h$ of verb root ha. There is the more reason to do so, since isolated cases of causative stem followed by an object-marking second root, are found in Dani also, e.g. gokot-napin (marked for 1 ps object) (446).

The "causative voice category" in Dani is semantically characte-
rized as "the origin of a verb with the lexical meaning: to bring about the state which is designated by the root-morpheme" (447). The analysis of causative stems given by Bromley is in line with the description given here; he finds a morpheme Vt which occurs at the end of stems. These stems have primary stress on the final syllable, and are followed by a form of the verb han (448). Generally the morpheme has a "transitivizing" function if following "secondary verb roots of incurred process" an a "verbalizing" function if following "adjective roots" (449). In other words, the Dani compounds showing the mentioned morpheme are characterized by the same features as their Yali countexparts.

As stated above, the causative stem in Yali is followed by a form of an object marking verb. In Dani "some of these constructions" (i.e. compounds showing the causative stem) have a marked object, "but with other secondary verb-roots, marked personal objects do not occur" (450). Comparison with Yali data makes it probable that these at first sight unmarked (i.e. for object) compounds are implicitely marked for 3 ps . The fact that most of the compounds show a form of the "locative auxiliary" ha as second component makes this interpretation possible, although reflexive voice also could be marked with this second verb (451).
Our conclusion is that both Yali and Dani have a causative stem, which is found as the first component in compound verbs and shows morpheme (V)p in Yali, allomorph (V)t in Dani respectively, following a verb root, an adjective or an adverb.

### 6.7 Causative stem with reflexive voice

Besides members of the reflexive voice category as described in section 6.4 , compound verbs such as the following are found in Yali: yuhulip-fatsa - "to splash oneself" (cf. simple root yuhul "to denggelep-fatsa - "to make oneself suspected" (litt. "to cover oneself $f^{4}$ falep-fatsa - "to build for oneself" (cf. simple root fal "to būī $d^{\text {² }}$ ) seberep-fatsa - "to humiliate oneself" (cf. first component sebe
suontep-fatsa - "to make oneself great" (cf. adj. su "big')
Verbs like these show a causative stem, followed by a form of the second root fatsa. This second root can be classified as a normal root final a verb (class VI), and consequently, forms corresponding with this root can show up as members of, in principle. any of the categories mentioned in chapters 4 and 5 (452).
There is one simple verb the expected reflexive voice forms of which are blockaded by forms which resemble the mentioned second root:
ombatasa - "to put for oneself" (cf. simple verb root VmbV "to put")
No doubt the second root fatsa and the reflexive voice compound ombat-sa have a common origin. When the original reflexive voice compound became the second root in the above-mentioned causative-stem-with-reflexive-voice compound, the characteristic primary word stress (as still present in ombat-sa) shifted to the first component final syllable of the larger compound (as in the above mentioned verbs). In due time the original cluster $t-s$ showed the tendency to become a geminal cluster ${ }^{*}$ tt $>t$; in present-day Abenaho Xali the geminal cluster indeed is found several times: e.g. falep-fata (as a free variant of falep-fatsa) (453).

The causative stem with reflexive voice compound verbs are semantically characterized by the combined features of the causative stem and the reflexive voice categories, with this reserve that the (benefactive) object of the action meant in the first compound is the same person as the subject, indicated by the actor marker in the second component.

### 6.7.1 $\underset{=}{0} \mathrm{mparison}$

I did not find forms in Dani which are comparable to the members of the causative stem and reflexive voice category in Yali. They might be present in that language, however; since reflexive voice in Dani is indicated by a form of ha following the first component of a compound verb, it is not easily detectable, as I have mentioned earlier (454). With respect to some of the forms mentioned in section 6.6.1, which show ha following causative stem marker (V)t -
i.e. those not having marked personal object - , there might be talk of reflexive voice; but none of the describers of Dani mentions such a feature.

## $6.8 \quad$ Object marking


As said in section 6.1 , the second component in compound verbs often marks pexsonal object. The object may be direct or indirect. The object is marked in what we may consider as the root of the verb which is the second component of compound forms. That the second component in such compounds is considered as a verb on its own has mainly two reasons. The first is a formal one: the compounds which mark objects show primary word accent on the syllable preceding the second component, i.e. on the final syllable of the first component; in this respect the object marking compounds follow the same pattern which was observed in other compound verbs. Morecver, the second reason to do so is the fact that the second series of object marking roots also occurs on its own as a simple verb; thus, analogically speaking, the other series of object marking second components can be considered as containing roots as well (455).

The term root here is used in a somewhat exceptional sense. For, as will become clear in the description, in these roots formal elements, corresponding with the objects marked, can be segmentated. Nevertheless, since these roots are found preceding the morphemes which formally characterize the categories mentioned in chapters 4 and 5 of this study, and in this respect are similar to roots of simple verbs, the term can be applied rightly in the case of the second components of object marking compounds as well.

The first series of object marking roots entails the information that the relationship between the action meant in $R$ and the object marked, is of a benefactive nature. It shows the following roots:

```
nit : "to do something for me"
hit : "to do something for you sg."
it : "to do something for him/her"
risa : "to do something for us"
hisa : "to do something for you pl."
isa : "to do something for them"
```

These roots can be found with the morphemes of most of the categories described in chapters 4 and 5 (456).
As members of these categories the roots marking singular object are formed in the same way as the other final.$\underline{t}$ verbs of class IV; those marking plural object as other class VI root final a verbs. Examples of complete compound forms, showing an object marking root of this series, are:

$$
\begin{array}{r}
\text { Og.isahuk - "I shall give them"(R og cf. ch. } 6.2 \text {, isa } 3 \mathrm{p} \mathrm{pl.} \\
\text { object, huk } 1 \text { ps actor second future) } \\
\text { yanggul-nirehen -"you taught me" (R yanggul "to teach", nit } \\
1 \text { ps object, ehen } 2 \text { ps actor first past) } \\
\text { war-isaruk - "to kill for them" (R war "to kill", isa } 3 \mathrm{pp} \text { ob- } \\
\text { ject, ruk durative stem) }
\end{array}
$$

The second series of object marking roots is used especially in those cases where the first component is a root denoting some kind of perception or direction (457). The objects marked are direct objects of the act of directional perception, meant in the first component. This series shows the following roots:
nea marking 1 ps object
hea marking 2 ps object
ha_ marking 3 ps object
nisa marking 1 pp object
kisa marking 2 pp object
isa marking 3 pp object
Ideally these roots, if occurring with morphemes which mark any of the categories described in chapters 4 and 5, are formed as other members of the class VI of root final a verbs. However, the root medial vowel e of those marking 1 ps and 2 ps object is replaced by $i(y)$ if the root final a as in corresponding forms is replaced by $\underset{\underline{i}}{ }$ or $\underline{\underline{u}}$ of following morpheme; the following examples,
members of the first future or immediate hortative categories, as the case may be, illustrate this phenomenon:

FIRST FUTURE

|  | object | actor |
| :---: | :---: | :---: |
| heamin | 2 ps | 1 ps |
| neamihin | 1 ps | 2 ps |
| niyikon | 1 ps | 3 ps |
| hiyul | 2 ps | 1 ps |
| nealihip | 1 ps | 2 pp |
| niyukon | 1 ps | 3 pp |

## IMMEDIATE HORTATIVE

object actor

| hiyik | 2 ps | 1 ps |
| :--- | :--- | :--- |
| niyimin | 1 ps | 2 ps |
| heawag | 2 ps | 3 ps |
| hiyuk | 2 ps | 1 pp |
| niyimiek | 1 ps | 2 pp |
| heawag | 2 ps | 3 pp |

The same phenomenon is observable in the first past tense with 1 ps actor and the deferred hortative, e.g.

$$
\begin{array}{ll}
\text { hiyini } & (2 \mathrm{ps} o \mathrm{oj},) \text { and } \\
\text { niyimuk } & (1 \mathrm{ps} o b j .)
\end{array}
$$

The semivowel $y$ occurs, by the way, in more forms than these mentioned (458). The following forms ar examples of complete compounds which show an object marking root of this series:

$$
\begin{aligned}
& \text { kolap-nisarisi - "he caught sight of us" (R kolap "to put into", } \\
& \text { nisa } 1 \mathrm{pp} \text { object, risi } 3 \mathrm{ps} \text { actor } 2 n \mathrm{~d} \text { past) } \\
& \text { bik-heamin - "I shall look straight at you sg." (R bik "to look } \\
& \text { straight", hea } 2 \mathrm{ps} \text { obj., } \underline{m i n}^{\underline{n}} 1 \mathrm{ps} \text { act. 1st future) } \\
& \text { yet-niyukon -"they shall look at me" (R yet "to look at", ni.y } \\
& 1 \mathrm{ps} \text { object, ukon } 3 \mathrm{pp} \text { actor first future) }
\end{aligned}
$$

The third series of object marking roots indicates, generally speaking, that the object marked is the direct object of the action meant by the $R$, preceding the roots in a compound verb. In other cases the object marked is the benefacted object of the action, with this implication, however, that the action is not completed in the presence of the benefacted person. This series shows the following roots:

| nap | indicating 1 ps object | hinap indicating 2 pp object |
| :--- | :--- | :--- |
| hap indicating 2 ps object | inap indicating 3 pp object |  |

These roots can occur with most of the morphemes which charat terize the categories mentioned in chapters 4 and 5 (458a). As members of these categories, they are formed like the other final p verbs of class III.
A compound verb marking 3 ps object with root ${ }^{\text {ap }}$, as might be expected, is not found in Yali; it is blockaded by forms of the simple verb which apparently refers implicitely to 3 ps object. Some examples of complete compound verb forms, showing a root of this series, are:

```
wan-inapag -"he dressed them" (R wan cf. wan-sv "to dress",
    inap 3 pp object, (*)agg 3 p actor 3rd past)
wilip-inabul - "we shall expel them" (R wilip} "to expel", inap
            3 pp object, ul 1 pp actor first future)
war-hinaptisi -"he killed/hit you pI." (R wat "to kill/hit",
                        hinap 2 pp object, /disi/ 3 ps act. 2nd past)
Og-naplug -'after having taken me"( og cf.6.2, nap 1 ps obj.
    lug} perfect participle
```

A member of the fourth series of object-marking roots is found, if preceded by a causative stem, described in section 6.6. It shows the following roots:
naha marking 1 ps object
haha marking 2 ps object
fu marking 3 ps object
nisaha marking 1 pp object
hisaha marking 2 pp object
fisa marking 3 pp object

These roots, which are found followed by most of the morphemes marking the categories described in chapters 4 and 5 , are members of the class VII of root final $h V$ verbs, except for the one marking 3 ps object, which is a member of the class $V$ root final $V$ verbs, and the one marking 3 pp object, which is to be classified with the class VI verbs.Semantically, compound verbs which show a member of this series of object marking roots indicate that the object marked is a direct object of the action meant in the causative stem.

The fourth series of object-marking roots is semantically distinct from the preceding one by the information that the object is rather passively undergoing the action, and that the state in which the object is brought as a result of the action, meant in the causative stem, is of a permanent nature, not a momentary one, as is often the case with the objects indicated in the third object marking roots; the third series is semantically unmarked in this respect. Examples of complete forms which show a root of the fourth series:

| sohorep-hahalug | -"after having left you sg. behind" |
| :--- | :--- |
| sep-firisi | -"he "did" her"(i.e. he raped her) |
| libilip-nisahakesa | -"they untied us" |
| seberep-fisarukuk | -"we have humbled them" |
| hupnip-iseheg | -"closing them"(i.e. their eyes) |

Looking over the object-marking roots as they are found as the second component in compound verbs, we can draw the following conclusions:
A. reference to 1 p object is done in the roots which show $n$ as first consonant, to 2 p object in the roots, which have $h$ as first consonant (i.e. if this $\underline{k}$ is not immediately followed by root final a) (459), and to 3 p object with roots which generally show zero consonant initially (except those mentioned sub. D). We find, consequently, the same person markers here which were found in sections 3.3 .2 and 3.3.3.
B. reference to plural object is done with the elements is, in the first, second and fourth series, or in, in the third series, (460) followed by root-final element $a$ in the first and second series (461), ap, in the third series, or aha, in the fourth series (except for the roots mentioned sub D).
C. the roots marking 1 ps and 2 ps object show as their final element it in the first, e (allomorph i) followed by a in the second (462), ap in the third, and aha in the fourth series.
D, exceptional cases are the roots ha (second series marking 3 ps object), fu (fourth series marking 3 ps object) and fisa (fourth series marking 3 pp object); the latter one shows plural marker is (463).

### 6.8.2 B1ockading and competing forms for the object marking <br> compound verbs

Roots of some simple verbs never show up as the first component in any object marking compound. Instead they have blockading forms, which semantically indicate some relationship to the object marked. The objects in these blockading forms are marked with prefixes. The verb na to eat, shows the following object marking roots (462 a).
nina marking 1 p object of na
lina
ina

The prefixes show phoneme $\underline{i}$ preceded by $\underline{n}$ if referring to 1 p object; h if referring to $2 p$ object, or zero if referring to $3 p$ object. There is no marking of the number of the object.

A peculiar way of object-marking is found with the verb VmbV, "to put". Corresponding roots with marked object show both prefixes and infixes:

| nombaha | marking 1 ps direct or indirect object of | VmbV |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| hombaha | $"$ | 2 ps | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |
| ninombisaha | $"$ | 1 pp | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |
| ninombisaha | $"$ | 2 pp | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |
| hinbisa | $"$ | 3 pp | $"$ | $"$ | $"$ | $"$ | $"$ | $"$ |

The root VmbV with zero object marker refers implcitely to 3 pp object. The morphemes marking the other objects surround the verb root VmbV in a way which is unique for Yali. The 1 p and 2 p objects are marked with prefix n resp. h. If singular object is marked the element aha is found instead of the second $\underline{V}$ of the corresponding root VmbV ; the same element accounts for the choice of $\underline{o}$ as its first $V$ (463a). If plural object is indicated, both elements in, following the personal object marker, and is, preceding the element aha, are found; the 3 pp object marking root imbisa blockades the expected ${ }^{\text {E inombisaha. As }}$ far as 1 pp and 2 pp object marking concerns, it can be considered to be some kind of double
marking, - although this phenomenon can be explained from its historical development (464) -:the elements in and is are both found as markers of plural number in the normal object marking compound verbs.

The root ha, "to perceive" is not found as first component in an object marking compound. Such expected constructions are blockaded by forms of object marking simple verb roots which are homophonous with the second series of object marking roots. Reasoning the other way round, we might as well say that the second series of object marking roots of the verb ha, which then shows up as the second component in a compound, following a stressed root of an other simple verb, although not necessarily with the lexical meaning of the simple verb ha.
The verb wat, finally, has object marking forms which do not blockade forms of object marking compound verbs with wat as $R$, but compete with the compound forms, which are made up of wat followed by a member of the third series of object marking roots. These competing forms correspond with the following roots, which show object prefixes:

| nowat | marking 1 ps direct object of wat |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| howat | $"$ | 2 ps | $"$ | $"$ | $"$ |
| ninusV | $"$ | 1 pp | $"$ | $"$ | $"$ |
| hinusV | $"$ | 2 pp | $"$ | $"$ | $"$ |
| inusV | $"$ | 3 pp | $"$ | $"$ | $"$ |

Analysis of these roots (except for wat itself, which implicitely refers to 3 ps object) yields the following results:
the markers of personal object are $\underline{n}$, $\underline{h}$ or zero for first, second or third person;
the number of personal object is marked by zero for singular and in, following the person marker, for plural:
the verb root initial $\underline{w}$ is preceded by vowel o, following
1 ps and 2 ps markers; the nature of this vowel is in accordance with the rules of prefixation laid down for other fields of the language (465);
the verb root wat is replaced by suppletive root usV following plural object marker; it is possible that the meaning of "plural" is implicite in this root (466).

Our conclusion is that the object marking generally follows the same pattern in the blockading forms as in the object marking second components of compound verbs. That is, we find in both the person markers $n$, h or zero, and the plural markers is or in. The 3 ps object generally is marked by zero formal feature.

### 6.8.3 Comparison

There is no need to repeat in detail the extensive description of "object vojce categories" in Dani, as given by Van der Stap (467). His chapter on "The first, second and third object voice categories in retrospect" (468) offers sufficient material for a comparison with Yali data. Once again, it must be mentioned that Dani forms with "object-morphemes" also have primary word stress on the syllable preceding these morphemes (469). This fact is a sufficient reason to class the forms with "objectmorphemes" under other categories of compound verbs; our main focus will be on the second component of those compounds. The Dani dialect described by Van der Stap offers three series of "object-morphemes" (470), "infixed between the root-morpheme and any tense or aspect morpheme" (471)
( "root-morpheme" = first component) .Except for the third one, the series are complete, i.e. they show morphemes for each of the six personal objects.

Summarizing the conclusions formulated by Van der Stap, we find that in all categories the object is marked by $\underline{n}$ for first person, $\underline{h}$ for second person and zero for third person (472); this corresw ponds nicely to the material found in Yali.
The series "object-morphemes of the second object voice category" shows number indicators zerofor singular and in for plural, following the person marker and preceding the formal element ap; semantically this category is characterized by the information that the object undergoes the action of the root morpheme more or less pas-
sively (473). Both formal and semantical characteristics are similar to those found in the Yali third series of object marking roots. As to the first series of "object-morphemes" in Dani, Van der Stap finds their number corresponding "to the vowels $e$ and $y$ for singular and plural", following the person marker and preceding the "formal element $\mathbf{s}$, which formally is often replaced by $\underline{t}$ " (474). As was clear from the description of the first series of object marking roots in Yali, there is no singular - plural contrast corresponding to a vowel contrast in that language; as a result of our analysis, however, we found plural in the second object-rarking root marked by the element is following person marker, - vs. zero marking of the singular -, and preceding root final vowel a. Although the last remark is not made for Dani by Van der Stap, we can conclude its validity for Dani from the following comment: "The blockading 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" (475). Fortunately, comparison with Yali data gives the reason for this "blockading": because of the a following "formal element s", the "object-morphemes" (i.e. second roots in my terminology) marking plural persons are members of the root final a class of verbs; this means that their morphological pattern corresponds (in Van der Stap's terminology) to the "secondary categories" (476). Comparison with Yali data does not confirm Van der Stap's conclusion that "the special relation between action and object .. must be put down to the formal element $s$..., because this is the only formal element common to all six forms" (477). One has to remember also that this $\underline{s}$ is often replaced by $\underline{t}$; or in the words of Van der Stap it "is too weak to resist the morphonological rule" (478), that "root-morpheme-final $\underline{s}$ is replaced by $t$ as soon as a consonant follows" (479). This fact, together with the remark that the above cited number indices "are not supported categorically in other fields of the language" (480) means that one must accept the impossibility of analysing the "object-morphemes" unambiguously if the analysis is mainly synchronical (481). This does not affect the categorical character of the object marking root, as
it is said for Dani that "even if the one or more categories playing a role in the different "object-morphemes" cannot be analysed completely, the total resultant form is apparently categoric" (482). The formal corresponden $e$ between the Yali and Dani object-marking zategories under discussion is strikingly confirmed by the similarity of their semantic characteristics. In Dani, as in Yali, the category "entails the information that the action is performed for the benefit" of the objects marked (483).
Van der Stap's acocunt of the "object voice categories" does not give rise to the concept of a "series of object-morphemes" which could be compared with the second series of object marking roots in Yali. Bromley, however, mentions the "auxiliary" root ha occur"ring with markers for personal objects, which is identical with the primary verb meaning "to see", and denotes a "locative relationship" between action and object (484). It shows the following roots for the six marked objects:
nea
hea
ha
nisa
hisa
iss

The formal and semantic similarity of these roots to the Yali second series of object marking roots is striking. Taking this fact into account, I think it hardly possible that this series is absent in the Mugogo-Dani dialect which Van der Stap describes, to be sure, I found an example of the series in a Mugogo dialect: hakhea ("to catch you') (485).

Comparing the remaining series of "object-morphemes of the third object voice category" in Dani with the fourth series of object marking roots in Yali might seem an hazardous undertaking, but it offers the opportunity to formulate a hypothesis which can illuminate the whole situation with respect to object-marking forms in both languages.

To start with, Bromley gives some additional information relating to the formation of Van der Stap's "third object voice category". In his conception the primary verb meaning "to put", root hei, occurring with prefixed object markers, shows uo also as an auxiliary denoting some kind of "depositional relationship" between action and object (486).
More interesting than this remark is his mention of alternating 1 p object marking forms of this verb e.g.

$$
\begin{array}{ll}
\text { nakein } & \text { besides hanin (1 ps object) (487) } \\
\text { ninakein besides hinanin (1 pp pbject (487) }
\end{array}
$$

Comparing these alternative 1 p object marking forms with their 2 p object marking counterparts - hakeik (2 ps object) and hinakeik (2 pp object), corresponding with "object-morphemes" hak and hinak as described by Van der Stap (488) - this conclusion suggests itself: that hanin and hinanin show metathesis of person marker and root consonant: the more original forms without metathesis are nakein and ninakein respectively. That the root consonant in the latter forms $1 \mathrm{~s} \underline{k}$ instead of $\underline{h}$ does not invalidate this conclusion, since more examples of an alternation of this kind are found in Dani (489).

Two more observations can be made as a result of the above statement. First, the opposition of 1 and 2 person markers in the "object morphemes" as described by Van der Stap is not between $\underline{n}$ (final consonant of han and hinan) and $\underline{k}$ (final consonant of hak and hinak), but between $\underline{\underline{n}}$ (final consonant of han and hinan) and $\underline{h}$ (initial consonant of hak and hinak).
Second, Van der Stap's problem in his remark that "the restriction of forms with second p object (i.e. hak and hinak, F), to secondary tense and aspect morphemes at the present stage of research cannot be explained" (490), is resolved by realizing that both the primary verb hein and its object-marking counterparts (i.e. showing roots hakei, hinakei, and also nakei and ninakei) are members of the root final $\underline{V}$ class of verbs, which explains their morphological peculiarities (491).

The comparison of Dani data with Yali forms raises an interesting problem. Whereas the recognition of an original verb root in the above-described object marking forms in Dani is pretty simple, for the Abenaho-dialect of Yali this question is not so easy to answer.

No primary verb root is found in the latter language which can account for the formal and semantic characteristics of what $I$ have termed the "fourth series of object-marking roots"; the element aha as such does not point in any special direction. However, taking into consideration forms of the Angguruk dialect of Yali, i.e. those having as secondary roots (with the same semantical characteristics as the Abenaho fourth series of object marking roots) nvbaha, hvbaha, nvnvbaha and hvnvbaha, marking $1 \mathrm{ps}, 2 \mathrm{ps}$, 1 pp and 2 pp object, we find the Abenaho roots being shorter than their Angguruk counterparts; they miss the element vb which follows person ( + or - number) markers and precedes aha (492). This element $v b$ in the Angguruk dialect can easily be interpreted to be the intervocalic equivalent of fV, the zero marked 3 ps object root, corresponding with the other Angguruk roots as far as lexical meaning concerns. The root fV in the Angguruk dialect is cognate with the Abenaho fV (493). This underlines the hypothesis that the fourth series of object-marking roots in the Abenaho dialect goes back to forms of the root fV with prefixed object markers. Not directly connected with the problem of some original but obsolete fV in the Abenaho fourth series of object marking roots is the question of why the Abenaho and Angguruk dialects differ with respect to the plural marker in these roots: is in Abenaho vs. vn in Angguruk (494). Probably thig is also due to the loss of element $v \underset{b}{ }$ in the Abenaho dialect: one can imagine that plural marker is has taken the place of an original marker in, after the elimination of an element, which was earlier separating both markers (495).

That the idea is not strange of a double plural marker in the Abenaho language can be concluded from its occurrence in the obJect forms of the verb VmbV (496).
Interesting in this respect is the absence of this double marking in the object forms of its Angguruk cognate emberuk (497).

Both dialects correspond in their marking of 3 pp object: imbisaruk and embeseruk , where the marking is done with zero person marker, and plurai marker is or es following the verb root and preceding person and tense morphemes (498). The typical form of the 3 pp object marking secondary root of the fouth series in both Angguruk and Abenaho Yali can be accounted for when we keep in mind the typical form of the 3 pp object marking simple verb: consonant f preceding the plural marker can be considered the equivalent of the primary verb consonant mb (499). The plural marker is, finally is found also with 3 pp object marking forms of hein, the Dani cognate of VmbV : hisan, where the plural marker, as in Yali, is following the verb root (500).

Whereas comparative morphology shows how the fouth series of object marking roots is related to the blockading obiect forms of the verb VmbV in Yali, and "third object morphemes" with the object forms of the verb hein in Dani, comparison of the simple verbs in other dialects shows that the systems in both languages are related also on the level of lexical meaning: the verbs hein (Mugogo), bpin (Midvalley), foruk (Ninia Yali) and VmbV (Angguruk and Abenaho Yali) all show the root consonant which might be expected as a result of differentiation of the same consonant in different dialects of the Greater Dani language, and is in line with the pattern of its geographic phonology (501). Moreover, all of them have the same meaning: "to put". In the following diagram I list the simple roots, their object marking counterparts and the object marking roots, if occurring as second component in compound verbs:


As to the blockading or suppletive forms for object marking compound verbs, Van der Stap mentions the "improductive fourth object voice category" in Dani which shows object morpheme prefixed to the verb wasin, "the initial consonant of which is dropped whenever a personal object-morpheme other than zero is prefixed" (502). Comparison with object forms of wasin's Yali cognate wat yields the interesting fact that while object and number markers are the same in both languages, the initial consonant $w$ is not dropped in Yali, but preceded by ㅇ following 1 and 2 singular object marker and replaced by the root usV following plural object markers. Something like the "composite object voice category" found in Dani i.e.one of the stems wenak, muk or wok followed by object forms of the verb wasin (503), was not found in Yali, except for an objectmarking perfect participle which is suppletive to comparable forms of the third series of object marking roots (504). This participle which shows personal object markers $\underline{n}$, $\underline{h}$ or zero for 1 , 2 or 3 p respectively, followed by number markers zero or in for singular and plural, followed by element as, followed by participle marker ug (506), is not very frequently used in the Abenaho dialect of Yali (507). Since its form (except for the participle marker of course)is identical with the second component of the above mentioned Dani category, we might safely suggest that it is borrowed in from that language.

Finally, object marking forms of the verb "to eat" are not mentioned by Van der Stap; Bromley expressis verbis states that this verb is "never marked" for personal object (508).

Overlooking the whole of object-marking in both Dani and Yali, and realizing that some verbs mark objects in prefixes to their roots, we might put forward the hypothesis that the latter represent a former stage in the development of the languages; that consequently the use of compound verbs for object-marking is a later phenomenon, being the result of a process in which the available material was systematized gradually.

Actually, we found no object-marking simple verb counterparts of only one series of object marking roots - viz. nap, hap, etc. - . The other three series have corresponding, c.q. identical, objectmarking simple verb forms (509). And even the third series, nap, hap etc., can be related to a simple verb: the root ap, although not with marked personal object, is found in Yali and implies a relationship between the actor and the object, meant in another word in the sentence, e.g.

$$
\begin{aligned}
& \text { wim aptusa } \quad \text { "they fought with each other" } \\
& \text { ambik aptukuk -"we played together" }
\end{aligned}
$$

We can, consequently, safely assume that in past times the third series of object-marking roots had its simple verb counterpart as well as the other series.

## 7. Composite verbs

### 7.1 Introduction

On the border of morphology some combinations of two verbal forms show up in ooth Yali and Dani, which by their regular appearance seduce the investigator into accepting categorical processes, morphologically speaking. One reason for this acceptence is stress. The combinations that I mentioned show the primary accent on the final syllable of their first constituting part (510). A second argument is the inseparability of both parts.
Since accent and isolability were the phonological criteria accepted for limiting the subject of morphology, there can be hardly any objection in considering the above-mentioned combination to be part of the morphological system of both languages and in labelling them "composite verbs".
The difference between these and the verbs labelled compounds which were described in the preceding chapter, are, first, that in composite verbs the first constituting part is never a primary verb root or object bound verb stem, but either the durative stem or the motion stem of primary verbs, or a compound root (511) and second, that the second constituting part of the composite verbs has an avowed lexical meaning, viz. "to continue" or "to move in some way" (512).

I will consider as composite verbs only those which show up in most or all of the categories described in chapter 4. Combinations of verbal forms which are limited in this respect belong to the realm of syntaxis (513).

### 7.2 Composite verbs indicating progressive aspect

Verbs composed of a durative stem and a form of the verb at are frequently found in Yali. Semantically they inform us that the action referred to in the root of the stem is (or was, or shall be) an enduring one; the time setting of the action is dependent on the tense of the form of at.

Examples of these verbs are:
loltuk ahep - "yau (pl.) are untying" (first pas* tense)
il_laruk apag - "they were going, while saying ." (third past tense)
horiep-fisaruk apag - "they were putting them down" (id.)
sumbut_isaruk amuhup - "they will be distributing among them" (se- cond future)
waharuk_sowag - "we were coming" (third past, cf. remark 3)
minduhup naharuk - "3 $p$ is raising me" (first past, cf. remark 1)

## Remarks:

1. 3 ps and 3 pp in the first past tense are blockaded by durative stem followed by zero second part, e.g. baltuk - "he/they is/are cutting".
2. Instead of the verb at as second part of the progressive aspect composite verb, Angguruk Yali has the verb lat (514).
3. Third past tense forms for 1 and 2 p actor are blockaded, as far as the second part concerns, by the forms of the verb sV (515).

### 7.2.1 Comparison

In Dani composite verbs are found which resemble the Yali ones in a remarkable way; they are "composed of a verb stem and another verb" "in such a way that they are inseparable, whereas the lexical meaning of both components contribute in the meaning of the compound" (516).
For obvious reasons I choose only one of the three composite verbs mentioned as the starting point for comparative analysis (517), i.e. the composite verb consisting of a root, followed by hy, preceding a form of the verb lokon; this composite verb semantically denotes "that the actor continues the action of the first component" (518); the correlation with the verb lokon is clear: its lexical meaning is "to stay", "to remain" or "to keep ......ing" (519). Our first conclusion in connection with this Dani composite verb can be the statement that where Yali has durative morpheme tuk as
the final syllable of the first constituting part, Dani shows the element hy.
Van der Stap accentuates the fact that the element hy as final syllable of the first "component" has a primary stress by writing a hyphen between hy and lokon (520). This distribution of stress is similar to what we found in Yali.
After noticing this notation of stress, I feel the more surprised at its absence in other "progressive aspect categories" described by Van der Stap. These "categories" include forms such as the following:

| sopalhylahy | - (: sopalhy-lahy) (521) |
| :---: | :---: |
| wakanhylaken | - (:wakanhy-laken) (522) |
| wakanhylahyky | - (:wakanhy-lahyky ) (523) |
| libilhylahyky | - (:libilhy-lahyky (524) |
| sopalhylahykysik | - (:sopalhy-lahykysik) (525) |
| sepelysasykhylahy | - (:sepel-ysasykhy-lahy) (526) |

In all these forms Van der Stap discovers a "progressive aspect morpheme" hyla-S (527), in which $\underline{S}$ stands for a "vowel separator" (i.e. $\underline{h}$ between vowels $\underline{a}$ and $\underline{y}, \underline{k}$ between $\underline{a}$ and $\underline{e}$, and zero between a and $\underline{i}$ or $\underline{u}$ ) (528).
Comparing these forms with those showing a form of the verb lokon as second component, one feels inclined to analyse the "progressive aspect categories" in analogous way. In the present categories, however, there is no form of lokon following progressive aspect marker hy, but a form of another verb. This other verb apparently is homophonous with the verb lan, root las in those forms quoted by Van der Stap. As such it is a member of a group of verbs which show some peculiarities in their forms (529); this group also includes verbs with the roots as and welas (530). We must note, however, the absence of second past tense allomorph initial consonant $\underline{k}$ intervocaliy in the "near past progressive aspect category" (531).
The element hy as marker of progressive aspect is also mentioned by Bromley (532); forms such as wathy-laky and nykhy-laken are
examples of progressive action constructions which show forms of wela, and lokoi "continue" as the "auxiliary", marking progressive aspect.
In the Angguruk dialect of Yali, progressive aspect is indicated by the marker tuk, as is the case in Abenaho, but followed by forms of the verb -lat. This verb, being a member of a group which includes at (533), links the Dani and Yali progressive aspect forms, since it is cognate with the Dani las.

### 7.3. Composite verb forms marking the combination of action and motion

As I indicated in section 5.8 , the motion stems are used only preceding a form of a verb of motion (534). Very often the verb of motion is either la or waha , e.g.
yarik laruk -"to go planting" eserik waharuk -"to come cooking"

Other verbs of motion can take second position in composite verbs also:
og-isa_kuruk - "to enter giving them"
yabuk sik amburuk - "to descend working the garden"
Composite verb forms of this type do not indicate that some actor moves with the purpose or intention to perform an action, but focus on the action, while stating that performing the action implies some kind of motion (535).

In some of these composite verbs the first position is taken by a verb of motion (but never la or waha) ; the focus is then on the special kind of motion, while the second component (waha) indicates that the direction of the motion is towards the speaker:
ambik waharuk -"to come down"
lahik_waharuk - "to come up"

### 7.3.1 Comparison

Dani also has its composite verbs of the type described above. As in Yali they show primary word accent on the final syllable of
the first component. In the "category of composite verbs" Van der Stap mentions two verbs which are found in the second position, lan and wesin (536), i.e. the cognates of Yali la and waha. Preceding these verbs the stem of another verb is found; the stem is "root-morpheme followed by í". "gemantically the composite verbs with stem in i denote that the actor is on his way to perform the action of the first component" (537).
I am grateful for the remark that "nearly always the initial consonant of wesin is dropped in composite verbs" (538), because it offers the opportunity to connect the "composite present tense category" (539) with the one cited. In this "composite present tense category" we find as stem in the first position: a "root morpheme, followed by object-morpheme, followed by $\underline{i}$ or $\underline{a} \underline{i} / \underline{a}$ ".
The latter vowel in fact is root final a with zero stem marker (540). An interesting point is the second component of this "composite present tense". In Van der Stap's opinion it is a form of the verb akasin. Taking into consideration the above-mentioned - i.e. that root initial $\underline{w}$ of the verb wesin nearly always is dropped when the verb occurs as the second component of a composite verb -, one might suggest as well that in the "composite present tense" wesin is the verb underlying the second component forms; wesin is a member of a group of verbs to which akasin also belongs (541). Rechecking of forms offered by Van der Stap indeed yielded alternative forms where root initial $w$ is retained: i.e. besides e.g. hunetnesi-aka and hunetnysa-akep, also hunetnesi-waka and hunetnysa-wakep were found.
In conclusion, we can say that the "composite present tense" is not a category on its own, but in construction and meaning corresponds with other forms described as composite verbs above (542).

Also the "indefinite future tense" category in Dani is analysable as a composite verb (543). Word accent indicates that there is a major borderline in forms such as wetasisikin ( $=$ wetasi-sikin). In this case also rechecking of the forms offered alternative ones where, with the same meaning, the complete verb wesin showed up as second component: wetasi-wisikin.

We can consequently redefine the "indefinite future tense" as a composite verb, where the second component is found in the future tense; in this case as in others, forms of the verb lan show up as second component as well as forms of wesin.
Bromley expressis verbis mentions the forms coined by Van der Stap as "indefinite future tense" as examples of forms where neglect of word accent can result in incorrect analysis (544). As stated before, he analyses composite verbs denoting action and motion as combinations of potential stem and verb of motion (545), e.g. wasi lan -"to go killing" hei lan -"to go putting on"

Concluding this chapter, we state that both Dani and Yali have the composite verb as described, and that no particular forms show extreme deviations from the normal pattern.

## Conclusions

In comparing the morphological systerns of the Dani and Yali languages, and especially the Mugogo and Abenaho dialects of these languages respectively, this study began with the assumption that "when systems of data of common historical origir exhibit marked heterogeneity of structure, the divergent patterns of other systems are relevant to the description of any one" (546). In our case this means that a comparative analysis of the Mugogo and Abenaho languages, the historical relationship of which is firmly established because they share $74 \%$ of their basic vocabulary, offers the possibility of grasping the structure of both languages in a more proper way than would have been possible if the description had to rely on a "corpus" of data from either one. In fact, partial reanalysis of the Dani material brought forward by Van der Stap reveals how relevant Yali data are for the description of Dani; at the same time comparative analysis shows how intimately connected the two languages are on the morphological level. A major concept in this study is the "word", since morphology centers upon this node of meaning and form (547). If described as in section 3.1, and phonologically defined by the place of primary accent, the idea of the word is an indispensable tool in straightening out the morphological structure of the two languages. (548).
Exactly on account of word accent, a morphological distinction is made between simple verbs and compound or composite verbs; the latter show the primary accent word medially, on the final syllable of the very element which corresponds with the root of simple verbs, - i.e. in the case of compound verbs -, or on the stem marker which follows such a root - in the case of composite verbs.
Yali and Dani both have simple verbs and compound verbs, but there are differences in membership. There are several instances of forms which must be grouped with simple verb forms in Dani, while their semantic counterparts in Yali are compounds (549). In view of such discrepancies the thesis is held here that the
compound forms represent an older stage in the development of the two languages. This thesis is supported by the occasional occurrence in Angguruk of compound forms which are competitive with the normal simple verb forms. (550) An interesting illu. stration of the discrepancy mentioned is the reflexive vozce category which has simple verb forms as its members in Dani, but compound forms in Yali (551).
That compound forms in both languages contain elements which might have functioned more independently in former times is suggested also by the fact that some verbs have blockading or competing simple forms for object marking compounds. Moreover the object marking second components in those compounds are in nearly all cases related to or homophonous with such simple verb forms.
The composite verb forms are interesting examples of the way in which structures, intermediate between the word as a stressed unit and the sentence, are formed. That they fall within the scope of morphology is indicated by the occurrence of one primary accent; on the other hand the optional possibility of second components is rather great, as the forms mentioned in section 7.3 show.
In the languages which are the subject of this study, the possible types of composition are not as elaborately multiplied on account of certain rules as e.g. in Western Dani, but they certainly are categorical, i.e. their components are not put together ad hoc; moreover, their first components cannot be isolated. In this case, as in others, one could safely assume that in former times the first components of composite verbs occurred independently, as their second components do at present; the homophony of the motion stem with the "motivation" category of the hortative, and of the durative stem with a simple factive form, strongly favours such an assumption (552). Looking more closely at the categories of simple verbs now, and focusing on those marked by first order morphemes, we find that 16 out of 17 Yali categories have comparable counterparts in Dani (553), which is a remarkable amount. In the respective
sections the formal and semantical features characterizing the categories are described, and partial differences between Yali and Dani are discussed.
Among the 17 Yali categories, nine are found which distinguish themselves from the others by the fact that the morphemes marking them obligatorily are followed by second order morphemes marking the actor; in Dani we find eight of such categories. In most cases the sets of actor markers, described in sect.on 4.3.9 are comparable, and often the markers are homophonous in the two languages.
As for morphemes of the third etc. order, we find in the categories characterized by them the same congruence between the two languages as in other fields, including the few issues, which the morphology of nominal categories offers for comparative description.

Thus, although I did not venture to quantify the morphological data, the percentage which could indicate relationship between the languages on the morphological level, - if such a quantification was actually done - would probably reach a higher score than the figure of $74 \%$ which was reached on lexicostatistical grounds (554).

In defining his position over against the contribution of Van der Stap, Bromley raised an interesting point with respect to the internal organization of the Dani materials: "... the contribution to be made here, will be limited to reassessment of some of the data and reorganization of the material in terms of the fundamental oppositions of three contrastive "event modes", referring to the speaker's appraisal of the status of an event as factual, hypothetical or potential, and two major voices, reflexive and non-reflexive, referring to coreferential or noncoreferential subject-object pairs" (555). As for these "voices", the same remark could not be made for Yali, since the compound verbs indicating reflexive voice are contrastive with other object-marking compounds in that language, rather than with simple verb forms, which are semantically unmarked for personal object (556).

The idea of three contrastive "event modes", however, asks for more investigation. In Bromley's vision the "hypothetical mode" is marked with 1 following the verb root, which is a conclusion confirmed by comparison with Yali data. As for the "factive marker $h^{\prime \prime}$, we indeed find it several times in Yali also. In other cases, however, Yali forms show/ $\underline{\text { / }}$ where comparable Danl forms have h (557); it is not impossible to interprete both as allomorphs of an original factive morpheme. This means that marking of the factive mode is done in the following categories: first and second past tenses, first and second future tenses (558), iterative, resultative and adverbial participles and the durative stem. Although Bromley does not mention several of the actorless categories among those marked for factive mode, to do so seems to me a logical consequence of the attempt to distinguish the three modes referred to in the above paragraph. This leaves us, however, with two categories which seen to occupy an extra-systematical position, the perfect and durative participles; they show, if we take the data of the two languages together, the elements $h / k$, as well as 1 . Since both evidently show factuality as part of their meanings, it seems a hazardous task to connect them with the hypothetical mode on account of this 1 (559).

Potential mode is marked by zero morpheme in Bromley's opinion, I would rather opt for $V$ following the verb root and preceding actor markers as the marker of potential mode. This would free us from an excess of portmanteau's,is a good analytical possibility, and seems to be more in line with the general pattern of mode marking in the two languages. Categories marked in this way inolude the immediate and deferred hortatives, intentional aspect, gerund and motion stem.

To analyze morphological relationships of the Yali and Dani languages with other languages which are not members of the same family falls outside the scope of this study. Moreover, the literature on the subject is very scanty (560). It is not impos-
sible that careful comparative description together with sound historical hypothesis will reveal more agreement between the languages in the Highlands of Irian Jaya than lexico-statistics seem to suggest (561).
The establishment of such agreements is an important linguistic objective. A small-scale step in that direction was taken in the preceding pages. Demonstrating such relationshıps, whach date from a hitherto unknown time, should not, on the other hand, obscure the fact that each of the languages described functions as a self-contained system of communication in a specific cultural situation. Or, to put it in the words of an Abenaho Yali, who was confronted with a prece of written Angguruk text, it inune dot akeleg-at uruk, "they speak a language which is a bit different"; eke it inune etno nin atog ninapeleg neken, "and one could say that we don't understand the finesses of their language"; ari, we ebe fano wane suruk aheon oke, "I mean, we can read the "body" [i.e. the letters] of it quite well"; niren ari dot ketkeraple ano, uruk ahe, "but we say: "It is a little bit babarious, isn't it?""(562).

## APPENDIX I

The 100 word list, supplemented according to Bromley (1961, 290); the items for Angguruk, Mid Grand Valley and Pyramid Western Dani are taken from Bromley (id. pp. 305-306).

| English | Abenaho | Angguruk | MGV | PWD |
| :---: | :---: | :---: | :---: | :---: |
| 1. all | obog-soho | opok-toko | tadok-hokon | tapot-tokon |
| 2. ashes | ul | ul | wul | wun |
| 4. belly (my) | nahum | nakvm | nelaput | nanokvm |
| 5. big | suwon | souwon | gok | gok |
| $6 . \mathrm{bird}$ | suwe | suwe | tve | tewe |
| 7. bite (me) | 1ibil-naptuk | jvn | lipit- $\mathrm{Sanhe}^{\text {a }}$ | - |
| 8. black | sinon | siy $-0 n$ | $m i \delta i$ | muli |
| 9. blood | mep | mep | mep | mep |
| 10. bone (my) | nowag | noak | noak | nowskano |
| 11. breast(my) | nag: | nak | nu ak | nelak |
| 13. claw | ijog-ahap | vjvkakap | egaSit | egapit |
| 14. cloud | - hena | kyna | o-hena | ametakkot |
| 15. cold | sohik | svn | tokei | tokwi |
| 16. come (2 s) | ma | ma | eme | omek |
| 17. died (3 s) | war-aha | wat-aka | wat-laka | kegit |
| 18. dog | mene, y angge | mene | jege | gewo |
| 19. drink! $(2 \mathrm{~s})$ | ik namin | ik namin | i. nan | ji namen |
| 20. dry (leaf) | bug | ilimon | bvk | bvk |
| 21. ear (my) | nesanggo | nysago | nasuk | natk |
| 22. earth | kean | gynay | akat | gwen |
| 23. eat (2s) | namin | namin | nan | namen |
| 24. egg | suwe-anggan | suwe-gen | tve-gen | tewe-gen |
| 25. eye (my) | nil-anggen | nil | nel-egen | neneken |
| 26. fat | amog(si) | sei | amok | amok |
| 28, fire | hondok | idok | hidv | ydv |
| 30. flying | lenggaloko | lamdyl | lekhak-hogo | pvtruvk |
| 31. foot (my) | njy og | nvjvk | nesok | nijok-okvt |
| 33. give! (me) | oh-nimin | ok-nimin | wok-nom | wot-nytu |
| 34. good | fano | pano | hano | op |
| 36. hair (my) | niruk | notuk | nesi | neeti |
| 37. hand (my) | ninggik | nigik | negi | neegi |
| 38, head (my) | nunggulowag | nvgvl | nvgvl-oak | nanupak |
| 39. I heard | holihi | kolyky | nasuk-holhy | natuk konygi |
| 40. heart (my) | nindi | nydei | neday-gen | nynytty |
| 42. I | an | an | an | an |
| 43. kill (2 s) | warin | watin | wasin | watv |
| 44. knee (my) | nindibahal | nelegen-oak | nydypakal | nedopakvn |
| 45. I know | niluk | noluk | nilu | neenv |
| 46. leaf | engea | egela | ega | ega |
| 47. lie down! | ying-amin | jiv-amin | wil-asin | wyn-atv |
| 48. liver (my) | nasimohol | nasimvkvn | nasimakol | natemokvn |
| 49. long | jaron | jat-on | uwan | elualu |
| 50. louse (my) | nambi | py | napy | napy |
| 51. man | ap | ap | ap | ap |
| 53. meat | inu | unu | ino | vno |
| 54. moon | bikalem | bikkalem | tvt | tvt |
| 55. mountain | dom | dom | dom | poton |
| 56. mouth (my) | nambilik | nabilik | nabe-elep | nabe |


| 57. name <br> 58. neck (my) | $\begin{aligned} & \text { inuk } \\ & \text { nanggolop } \end{aligned}$ | unuk nagolop | $\begin{aligned} & \text { edaka } \\ & \text { na } \delta \text { ogop-at } \delta \text { e } \end{aligned}$ | edaka neganok |
| :---: | :---: | :---: | :---: | :---: |
| 59. new | keron | get-on | get | get |
| 60. night | hupmu | kvpmv | hypago | kilipme |
| 61. nose (my) | nambian | nabian | nakouwak-oak | nakapak |
| 62. not | eleg | elek | ek | lek |
| 63. one | misig | mysyk | begy-at | aby |
| 64. people | aphe | ap (?) | ak-hvny | aakkvny |
| 65. rain | osit | - sit | miso | ma.jv |
| 66. red | huluwon | kviv-on | mepmep | mola |
| 67. road | kalem | pvgalem | holak-adem | tuwan |
| 68. root | omanggen | omagen | omagen | omagen |
| 70. sand | (ik) sorli | jygy | dale | bini |
| 71. speak! (2 s) | hune-in | kele in | hane-in | kone jv |
| 72. look! (2 s) | yet-himin | $\begin{aligned} & \text { kyl jet- } \\ & \text { niseken } \end{aligned}$ |  | keneken na-ket |
| 73. seed (plant) | $i(-a n g g e)$ | ei | ay | 3wy |
| 74. sit! (2 s) | horie-imin | kvt-amin | hvtek-lasin | kwyt-natv |
| 76. skin (my) | nahap | nakap | noatSo | nakatlo |
| 76. small | doron | dot-on | $\boldsymbol{\lambda} \mathrm{vk}-\mathrm{v} \boldsymbol{\delta} \mathrm{ak}$ | buluk |
| 77. sleep! (2 s) | nohomin | nokotuk (?) | noke in | noko jv |
| 78. smoke | sohole/hubu | kvpv | totSe | totle |
| 79. stand! (2 s) | min-amin | in-amin | mel-asin | men-atv |
| 80. star | soholoal | sokal | husakel | lalykutakan |
| 81. stone | helep | kelep | helegit | jvkvm |
| 82. sun | mo | mo | mvlygy | mo |
| 83. swim! | kume warin | ik gume.. | gume wasin | gvme watv |
| 84. tail | ahe | akaje | aka | ake |
| 86. this | du | ydy | yly | yly |
| 87. thou | hat | kat | hat | kat |
| 88. tongue (my) | nambilikanggen | nabilikagen | nadi | namyly |
| 89. tooth (my) | nayeg | najek | naik | nyk |
| 90. tree | e | e | - | $\bigcirc$ |
| 91. two | biren | biten | bete | bete |
| 92. walk (go!) | 1ag | lak | Ian | enak |
| 93. warm | ahatget | enakan | akagen | akagen |
| 94. water | ik | ik | i | ji |
| 95. we | nit | nit | nit | nit |
| 96. what | nongge | nvge | nena-mege | nano-mede |
| 97. white | huluwon | jagou-on | moda | mola |
| 98. who | sa | sa | ta | ta |
| 99. woman | heap | keap | he | kwe |
| Supplementary items |  |  |  |  |
| $\begin{aligned} & \text { 101. across } \\ & \text { (stream) } \end{aligned}$ | ik femag | ik pvmak | ylypakan | enepakan |
| 102. bad | dag | sijak | weak | maluk |
| 103. man's gourd | humi | kumi | hodim | kepe |
| 104. headwaters | ik eleruk | eletvk | elesi | initi |
| 105. navel (my) | nanum | nanvm | namvn | _ |
| 106. net | sum | sum | su | jum |
| 107. not know | nap-eleg | nappelek | nogot ${ }_{\text {ek }}$ | neekgot lek |
| 108. pig | wail | wam | wam |  |
| 109. vomit | fobo | me | dedak | pejak |
| 110. vulva (3s) | angget | aget | eget | eget |
| 111. wild animal | bak | bak | dakei | pakei |

Appendix II
Remarks on Western Dani
In the following survey of the morphology of the verb in Western Dani $I$ will mention only those categories which are relevant from a comparative point of view. Since there is as yet no complete morphological description of that language, several aspects will hardly be mentioned, notably the morphology of the non-object-marking compound verbs. Moreover, no mention will be made of exceptional cases l).

## I Phonological remarks

Bromley (1961, pp. 8-10) describes the consonant pattern of Western Dani, which by the way has seven vowels. We find two series of stops, prenasalized and aspirate, at the labial, gingival, velar and labio-velar points of articulation. Western Dani has the same nasals, lateral and consonantal vocoids as Yali has, but the glottal stop also; it lacks the implosive. The fricatives are not mentioned as separate phonemes by Bromley.
The practical orthography in Western Dani is adapted from its phonemical orthography, as was the case in Yali. The prenasalized stops are rendered as mb, nd, ngg and nggw; the aspirate stops as $\underline{p}, \underline{t}, \underline{k}$, and $k w, ~ t h e i r ~ i n t e r v o c a l i c ~$ fricative allophones as $\underline{b}, \underline{r}, \underline{g}$ and $g w ;$ the other consonants are rendered as in Yali.The vowels are: $\underline{a}, \underline{e}, \underline{i}, \underline{y}, \underline{o}, \underline{u}$.

## II Verb classes

As with the other languages in this study, a verb class for Western Dani is to be defined as a group of verbs which because of their root final phoneme show great similarity in their forms as far as categorical features concerns.

For our purpose the following verb classes need to be distinguished, with roots as specified:

1. verbs with roots ending in consonant, e.g. eer, koor, nggagan, mban.
2. verbs with roots ending in a, e.g. ka, pekka.
3. verbs with roots ending in other vowels than a, e.g. pV, jV.

## III Past tenses

III A First past tense
The first past tense in Western Dani indicates that an action happened in the recent past; factuality is also an important element in the meaning of this category.
It is characterized formally by tense morpheme g, following the verb root and preceding the actor morpheme. With verb class 1 tense allomorph $k$ is found; if the preceding root final is a nasal, the resulting cluster of root final and tense allomorph is ngg; root finals $\underline{r}$ and $\underline{\underline{l}}$ assimilate with $k$. Some examples: nagi, root na (to go), tense morpheme g, 1 ps actor morpheme $\underline{i}$.
nggaganggen, root nggagan ("to split"), tense allomorph $k, 2$ ps actor morpheme en. mbanggy, root mban (to cut ${ }^{\text {t }}$, tense allomorph $\underline{k}$, 3 ps actor morpheme $\underline{y}$.

Root final vowel $V$ of class 3 verbs is found to be $\underline{y}$ if the tense morpheme is followed by singular actor morphemes, $\underline{v}$ if 1 and 2 pp actor morphemes follow, and $e$ if 3 pp actor morpheme follows the tense morpheme.
Example: prgo, root $\underline{p V}$ (to "put"), tense morpheme g, l ps actor morpheme ㅇ.

The verb "to eat" which has root na normally is found with allomorph root $\underline{n V n}$ in the first past tense, where $V$ stands for a vowel which harmonimes with actor morpheme vowels in about the same way as the class 3 verbs do, while suffixation of the tense morpheme follows the rule of class 1 verbs. Examples: nonggop, root $n V n$, tense allomorphe $\underline{k}, 2 p p$ actor morpheme op.
nengga, root nVn , tense allomorph $\mathrm{k}, 3 \mathrm{pp}$ actor morpheme .

## III B Extended past

The category of the extended past in Western Dani semantically entails the information that an action took place in a somewhat distant past, although it is difficult to draw a
very sharp line.
Formally the category is characterized by morpheme /tak/ following a near past form. The element /tak/ is easily recognisable as the Western Dani counterpart of Eastern Dani normal aspect marker tek (2).
Influenced by the suffixation of morpheme /tak/ some actor allomorphs show up in the extended past category.
More interesting than the formal aspect, however, is the fact that the marker of habitual aspect in one language functions as tense marker in a related language. This shift of meaning goes along with a more accurate definition of the time aspect in the verbal system of Western Dani.
Examples: mbanggirak, root mban, tense allomorph $k$, 1 ps actor marker 1 , extended past marker rak.
pogottak, root pV , tense morpheme g, 2 pp actor marker op(3), extended past marker tak.

## III C. Remote Past

The same morpheme /tak/ is found also as the final element in members of the remote past category. It follows the actor morpheme which is preceded by the remote past tense morpheme. This tense morpheme is /tVg/ with class3 verbs; allomorphs $\underline{g V g}$ and $\underline{V g}$ are found with verbs of the second and first class respectively; $\underline{V}$ in the above formulas stands for a vowel which is $e$ in the $3 r d$ and lst verb classes and $a$ in the 2nd verb class if the tense morpheme is followed by singular actor morpheme, and o in all verb classes if the tense morpheme is followed by plural actor morpheme.
That morpheme /tak/ at a former stage of the language probably was not obligatory as marker of remote past tense is indicated by the interesting remote past forms of the verb mbar (4). These forms, e.g. mbareegi (root, remote past tense morpheme, lps actor morpheme), mbareegen (root, remote past tense morpheme, 2 ps actor morpheme) etc. are members of the remote past tense category, but do not show morpheme /tak/; they are found in a special syntactical context, - never sentence finally - , and implicitely indicate
the change of subject in the following verb in the sentence. Examples: eereegurak, root eer, remote past tense allomorph eeg, 1 pp actor allomorph $\underline{u}$, tense marker rak.
kambeegerak, root kamb, remote past tense allomorph eeg, 3 ps actor allomorph e, tense marker rak.

III D Actor morphemes with past tenses
Western Dani has actor markers for the six persons. They are listed below, together with allomorphs occurring in some categories:


These actor morphemes are remarkably similar to those in Eastern Dani; like in that language 2 pp actor morpheme final $p$ assimilates with $t$ if the actor marker is followed by a $t$ initial suffix (5); in Western Dani this is not the case with the $n$ final of 2 ps actor morpheme, since this language has prenasalised stops.

## IV Future tenses

The general future tense in Western Dani is marked for singular and plural actor with the morphemes igin and ugun. With verb class 2 we find the allomorphs gin and gun. The root final $V$ of verb class 3 is replaced by the initial vowel of the future tense morphemes.

This category is formally and semantically identical with the future tense in Grand Valley Dani.
Another future tense category is found in Western Dani, semantically indicating both future and potentiality. Formally it is characterized by the following morphemes:

| $\frac{\mathrm{mvn}}{\mathrm{mvgrn}}$ | indicating | 2 ps actor |
| :---: | :---: | :---: |
|  | $n$ | 2 ps |


| mvgwy | indicating | 3 ps | actor |
| :--- | :---: | :---: | :---: |
| mvn | " | 1 pp | $"$ |
| mvgvp | $"$ | 2 pp | $n$ |
| mvgwa | $"$ | 3 pp | $"$ |

Verbs of classes $]$ and 3 when occurring in this category show up with allomorphs: vmvn, vmvgvn, vmvgwy, vmvn, vmvgvp, vmvgwa.
This category is very interesting from the comparative point of view. Formally it shows some links with the today's future category in Yali: morphemes mvn and mvgin resemble min and mihin; mvn and mvgvp can be connected with ul and lihip (6). Where Yali has special morphemes comparable with Grand Valley Dani future tense markers, when 3 ps and 3 pp actors are marked, Western Dani potential future shows morpheme final elements (gwy and gwa), which in form remind one of the durative category (7).
Semantically the Western Dani potential future category takes a position somewhere between Yali future tense and Grand Valley Dani remote future tense. That the information of future is certainly as important as the idea of potentiality in the Western Dani category is indicated by forms which show habitual aspect marker/tak/(8) following the second future morphemes. That these forms, e.g. namvgrndak (root na, 2nd future $2 p s$ marker mvgrn, habitual aspect marker dak) imply the certainty of the action, reinforces the idea of original semantic ambiguity that $I$ advanced earlier (9).
$V$ Hortative categories
V A. Immediate hortative
Western Dani has two hortative categories, the first indicating immediate, the second postponed incentive. The first category is marked by the following morphemes:

| 1 | indicating | l ps | actor |
| :--- | :---: | :--- | :---: |
| $\mathbf{V}$ | $*$ | 2 ps | $"$ |
| ijok | $"$ | 3 ps | $"$ |
| uwi | $"$ | 1 pp | $"$ |
| inip | $"$ | 2 pp | $"$ |
| ijok | $"$ | 3 pp | $"$ |

The class 2 verbs in this category show allomorphs zero, et jok, wi, nip, jok. In the verb classes 2 and 3 the root final vowel is replaced by morpheme initial vowel.
The immediate hortative forms for 2 ps of some verbs are blockaded: omok, nak, namen ( verbs meaning: "to come", "to go" and "to eat", respectively). In Yali the same verbs have blockading 2ps hortatives (10).

## V B Postponed hortative

The postponed hortative category indicates that an action should be performed within the time limit of about one week. Formally it is characterized by the following morphemes:


The class 2 verbs in this category show allomorphs kit, nok, wak, wak, bagip, wak.
What I stated about the Yali hortatives is valid also for Western Dani: the series of its hortative morphemes are clearly defined. In form relationship with Grand Valley Dani is visible in the $2 \mathrm{ps}, 3 \mathrm{ps}, 1 \mathrm{pp}$ and 2 pp postponed hortative morphemes; their cognates (i.e. "deferred hortative" morphemes) are nok, uwak, uok and upakeik (11).

## VI Durative

The durative in Western Dani is often found as a sentence final verb. As such, all six persons can be the actor, but formally the durative morphemes mark only singular or plural actor.
These morphemes are ge and gwy respectively; allomorphs ke and kwy are found with members of verb class 3. In the durative category the root vowel of verb class 2 is $e$ or $\underline{y}$, if followed by the singular actor morpheme, V , if followed by the plural actor morpheme.
The morphophonemic rules mentioned in the description of the first past tense are valid for the durative category also.

Examples: mbangge "sg. actor cuts", (root mban, dur. ke) nvnggwy "pl. actor eats", (root nVn, dur. kwy) pvgwy, "pl. actor puts", (root pV. dur. gwy) kolage "sg. actor takes", (root kola, dur. ge).
As stated before, the durative often occurs independentiy; it is found also very frequently as the first part of composite verb forms (12).

Interesting is the differentiation of the actor number in this category in Western Dani. Neither Yali nor Grand Valley Dani show the similar feature in their composite verb forms; in the case of Yali not even when the durative occurs independently (13).

## VII Forms with prior action marker

The suffix rik/ryk is found in Western Dani following tense forms of some verbs when they occur as the second component of composite verbs. Verb forms marked with this suffix entail the information that the action was prior to the action named in the next verb in the sentence, and also that the actor of both actions is the same.
The suffix ryk is found following most actor markers, its allomorph rik generally following 1 ps actor marker. When the suffix follows 2 pp actor marker, we find $t$ in the place of the expected cluster ${ }^{*}$ pr e.g. nogotyk instead of ${ }^{x}$ nogopryk; the same fature was found in those verb forms where marker rak follows 2pp actor morpheme (14).
Competing with prior action marking forms of the verb na are other forms of the same verb, which show either the marker tik/tyk or, following 2 p actor morphemes, a seemingly reduplicated marker. Following 2 ps actor morphemes this competing prior action marker is de'ndyk, following 2 pp actor marker tytyk.
Presently $I$ think it hardly possible to discover whether there is some process of reduplication also underlying the markers tik/tyk, or if these markers should be considered on their own, i.e. without supposing a relationship with the usual prior action marker rik/ryk.
It seems to me that the latter hypothesis is not too strong,
however, since competing forms of the habitual aspect merker rak are found with exactly the same characteristics as the competitiveprior action marker, i.e. tak instead of rak following 1 p and 3 p actor morphemes, and "reduplicated" de'ndak and tetak following 2 ps and 2 pp actor morphemes respectively (15).
Whatever the relationship between prior action marker rik/ryk and its competfivecounterpart might be, there is no difficulty in recognizing the similarity between the Western Dani prior action marker on the one hand, and the same marker in Grand Valley Dani and Yali on the other (16).

## VIII Place-of-action marker

Without describing in detail the morphology of a category in Western Danf which semantically indicates that an action was performed at a certain place, I mention its occurence, since it shows connections with place-of-action marking procedures for other Dani languages. Generally spoken, it is characterized formally by morpheme $\underline{m}$ following some past tense form. Interesting is the fact that in Western Dani this category seems to be more systematized and more specialized as to its meaning. In the Grand Valley Dani dialect a "setting-marker" mo is mentioned by Bromley (17), which follows verb forms and other words, and indicates locality in the broadest sense of the word.
I have mentioned already the morpheme mu/ma for Yali which indicates locality, but if following verb forms, it also entails the information that the actor of the following verb in the sentence is other than the actor of the form marked by mu/ma (18).
All the markers mentioned can be supposed to have a common origin, notwithstanding their present-day diversity.

IX Verb forms without actor indication
IX A Gerund
Forms comparable with the gerund in other Dani languages show the morpheme Vrak in Western Dani; V in this formula stands for a vowel which in the case of vowel final roots
takes the place of this root final vowel, and is if if the morpheme is affixed to class l verb roots, u if affixed to class 2 verb roots, and o if affixed to class 3 verb roots. The Western Dani gerund is found occurring independently - and then implicitly indicates some adhortation - and in the syntactical constructions where gerund in the other languages is found.

The hypothesis could be put forward that the element rak in the gerund morpheme is a later addition, - and as such can be compared with the habitual aspect marker rak - , and that originally $V$ was the gerund marker. This would fit in very well with the gerund makers in the other languages (19).

## IX B Perfect participle

The morphology of the perfect participle in Western Dani is remarkably similar to its Grand Valley Dani counterpart; both languages agree in form and meaning of this category. The morpheme in Western Dani is nuk, allomorph inuk if the morpheme follows $n$ final root (20)7; allomorph nok is occasionally found following some vowel final roots. Examples: mbaninuk "having cut" kenok "having seen"(21) ee'nok (ㅍeernok) "having done"

IX C Iterative participle
Of the iterative participle $I$ did not find any examples in Western Dani except for forms of the verb ka to see. This verb, which in Western Dani as in the other languages is marked for personal objects in prefixes, shows up in the
iterative participle category with forms such as neegak, niigak, 1igak, meaning "seeing me, us, them" respectively; the occurrence of these forms is, however, only seen in strictly defined syntactical constructions. The element gak in all these forms relates them to the Yali iterative participle category (22).

IX D Durative participle
Generally followed - but not nessesarily immediately by one of the verbs of motion na or wa, a durative participle is found in Western Dani, which indicates that an action is performed simultanouslywith the act of motion. Formally it is characterized by morpheme it following the verb root, e.g. jarit "planting", mamunit "teaching"; also logonet "being, while", is member of this category. The semantic characteristics of the category are comparable whith those in Grand Valley Dani and Yali, although the morphemes are not cognate (yk and il respectively) (23).

IX $E$ Resultative participle
The resultative participle in Western Dani is marked with morpheme ak following the verb root: mbanak"cut" koorak "cleaned". Formally and semantically the category is comparable with those found in both other languages (24).

IX $F$ Motion stem
The stem used to denote that an action was performed in connection with an act of motion is marked in Western Dani by morpheme $i$ following a verb root, and taking the place of final $V$ of verb class 2 root, or zero if following class 3 verb roots. The category is comparable with those found in the other languages (25).

IX $G$ Intentional aspect
Intentional aspect in western Dani is indicated by the combination of gerund and the element nduk of nuk. Comparison with the other languages makes it probable that this element is the shorter version of an original jinuk, the perfect participle of verb $j \underline{V}$ (26).

IX H Adverbial participle
The adverbial participle in Western Dani is marked by morpheme ogo, cognate with the markers in the other languages. The forms, e.g. warogo "dead", koorogo "clean",
are found in the same syntactical constructions as their counterparts in Yali and Grand Valley Dani (27).

## IX I Irrealis

Irrealis in Western Dani is an actorlees category. It is marked by morpheme neetak following; the verb root. Probably the person marked in this category - which shows no competitive markers for all of the six persons in the other languages either - (28), disappeared gradually, a process in which the irrealis marker was retained ( $\underline{\underline{n}}=\underline{2}$ 29), while additional (tense)marker rak became tak; as we saw in other categories (30), the $t$ of tak hints at a cluster which in former times might well have been: person marker followed by tense marker initial $r$.

## X Compound verbs

X A Medial voice
The medial voice category in Western Dani is formed in a way similar to the construction of medial voice compounds in other Dani languages. If the first component is an adjective, the second component is a form of the verb age "to become", which has as the root a which is cognate with that of Yali at. If the first component is a verb root, however, the second component is a form of the root na, which is cognate with la in both Grand Valley Dani and Angguruk Yali (31).

Some examples of medial voice compound duratives are:

| mbuluk-age | "sg. actor becomes small" |
| :--- | :--- |
| $\frac{\text { buk-age }}{\text { nda"-nage }}$ | "sg. actor withers" |
| $\frac{\text { koon-nage }}{} \quad$ "sg. actor is born" |  |

## X B Reflexive voice

Reflexive voice in Western Dani is indicated by compound verb forms showing as second component a form of one of two verbs which inply reflexivity. The roots of the two
verbs are : kola "to take (for oneself)", and par "to put (for oneself)"; both verbs are also found as simple verbs, i.e. without other verb roots preceding them. Cognate with kola is the Yali root hola, meaning the same, but never occurring in compound verbs. Undoubtedly related to par is the Yali root ombatsa, which as we have seen is found as second component of some reflexive voice compounds which show an adjective followed by the causative stem of the verb $S V$ as first component (32). It is interesting to note that the root par points back to some former dental consonant as its root final; the occurrence of aspirated $t$ in those instances where other $\underline{\mathbf{r}}$ root final verbs show $\underline{r}$ as the consonant connecting root and morpheme (e.g. patikit, instead of expected parikit, "I put for myself") reveals the morphological relationship with Yali fatsa.

X C Causative stem
The causative stem does not occur in Western Dani, as far as $I$ know. I did,however, find forms which formally are also members of the perfect participle category, showing a compound of simple verb root and the element pV , followed by the perfect participle morpheme. Since in Western Dani pV is a normal verb root, there is no problem in the element pu ; the correspondence with Yali fu, following causative stem and indicating 3 p object, is noteworthy, however (33).
Examples : ndappunuk , (root ndar) "having given birth to". mbambunuk , (root mban) "having cut".
The same phenomenon of occuring only in the perfect participle category is met in Western Dani with forms resembling the Yali compounds which are formed with the resultative causative stem.
They show an element ogoppu following the root of a simple verb and preceding perfect participle marker nuk. The Yali stem morpheme $V g V p$ is recognisable in ogoppu (34); its last phonemes apparently refer to root pV again.

Examples : warogoppunuk (35) (root war), "having killed". mbanogoppunuk (35) (root mban), "having cut".

X D Compound verbs with marked object
The system of the object-marking compound verbs seems to bemore elaborate in Western Dani than in any of the other languages, although,generally speaking, it corresponds to the pattern found in these languages.
We find fiveseries of object-marking roots, each series having its own formal and semantic characteristics: X Dl Benefacted object
Analysable in the same way as the first object-marking root in Yali and indicating that an action is benefactive to the object marked, is theseries showing the following roots:

| nyr | marking | 1 ps | object |
| :---: | :---: | :---: | :---: |
| kyr | n | 2 ps | $"$ |
| yr | " | 3 ps | " |
| nira | n | 1 pp | " |
| kira | " | 2 pp | $"$ |
| yra | $\#$ | 3 pp | $"$ |

Allomorph roots show up in some instances, the most important of which are ar and ara marking 3 ps and 3 pp object respectively, following not a root proper, but a verb stem; this stem, which is comparable with the resultative stem in Yali since it shows morpheme $g$ in the place of the normal verb root final $r$, is found with a group of verbs whose cognates in Yali occur also with the resultative Vg morpheme (36), generally speaking (e.g. Worar (Western Dani) $=$ werat (Yali), ndar (W $D$ ) $=$ endet (Y)). Examples : woragareegirak "I roasted for him". mbanyreegirak "I cut for him".

For the analysis of the object -marking roots mentioned above, I refer to the description of the comparable series of roots in Yali (37), and state only that they mark personal object with $\underline{n}, k$ and zero for $1 \mathrm{p}, 2 \mathrm{p}$ and 3 p respectively, number with zero for singular, and 1r/yr for plural, followed by root final(s) yr if singular
object is marked, and a if plural object is marked. $X$ D2 Second series of object-marking roots Compound verbs having as second component a form of a verb meaning"to perceiven, with prefixed object marker, and semantically showing the same characteristics as the comparable compound verbs in the other languages, are found in Western Dani also.
Since a complete description of the object-marking roots and their allomorphs is not required here, $I$ list only the results of the analysis of this morphologically abundant series (38):
Personal object markers : $\begin{array}{rr}\underline{n} \text { for } 1 \text { p object } \\ \underline{k} \text { for } 2 \text { p object } \\ & \text { for } 3 \text { p object }\end{array}$
Number markers : $\quad$ or ee for singular object
i or ii for plural object
Root finals, depending on the tense or aspect morphemes following the roots: jar, jaa or zero.
The 3 ps object marking root is ka, cognate with Yali and Grand Valley Dani ha.
Example : pekkejareegirak "I looked at you"
pek first component,
k 2 ps object
e singular object,
jar object root final,
eeg remote past tense morpheme,
i 1 ps actor morpheme,
rak past tense / habitual action morpheme.
Cf Yali: bik -hearikik
X D3 Third series of object-marking roots
Personal object is marked in a general sense, when after a primary verb root as first component, one of the
following roots occurs as second component:

| nap | marking | 1 ps | object |
| :---: | :---: | :---: | :---: | :---: |
| kap | $"$ | 2 ps | $"$ |
| ninap | $"$ | 1 pp | $"$ |
| kinap | $"$ | 2 pp | $"$ |
| ynap | $"$ | 3 pp | $"$ |

Because this series of object- marking roots is formally and semantically very similar to the series found in the other languages, any commentary is superfmous (39). $X$ D 4 Fourth and fifth series of object-marking roots This is not the case with two other series of object marking roots in Western Dani, where we find some interestingparallels with the other languages. In the first place, one of the first series is formally related to the Yali fourth object-marking root series, the other with a Grand Valley Dani object-marking root series; this is the more remarkable since we have seen that the series in both Yali and Grand Valley Dani can be attributed to one origin (40). In the second place, Western Dani shows a differentiation between its two series - although the difference is not very impressive - , where as the semantic characteristics of the respective series in both other languages are similar.

The series which is related formally with the Yali fourth object-marking root series has the following roots which are found as second component after a primary verb root:


Except for the roots which mark 3 p object, the above series needs no commentary; in fact those roots marking 3p object hardly do either, since they are regular in Western Dani, and as such are open to the same analysis as applies to the 1 and 2 p object marking roots in Yali (41). Formally comparable to the Grand Valley Dani fourth series of object-marking roots is the following series, which as the above one generally shows up as the second component of a compound after the root ofaprimary verb for the sake of clarity $I$ list at the same time the Grand Valley Dani cognates):

| pan | marking | 1 | ps | actor | - | han |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| paga | * | 2 | ps | 11 | - | hak |
| pinan | \# | 1 | pp | " | - | hinan |
| pinaga | n | 2 | pp | n | - | hinak |
| pijaa | \# | 3 | pp | \# |  |  |

The same process of anataxis that $I$ supposed for the Grand Valley Dani forms apparently can offer the solution for their Western Dani counterparts; this hypothesis is supported by the fact that in Western Dani as well the already mentioned verb root $p V$ "to put" is found, which sometimes occurs independently, sometimes as second component in a compound verb and then referring to 3 ps object (42).

Concluding the formal analysis we find in both series in Western Dani not only the person markers $n$, $k$ ( intervocally), and zero for $1 \mathrm{p}, 2 \mathrm{p}$, and 3 p respectively, but also the number markers zero for singular and in for plural ( except for pijaa, which as in its allomorphs marks plural as do the object-marking roots mentioned under $X$ D2. Root-finally we find vmba in the first series; because of the anataxis the second series shows p as the common element root initially.
That vmba and $\underline{p}$ are related, as we found in the other languages is indicated by the semantic characteristics of the two series. Both mark the personal object as benefacted, not in the general way as the series mentioned under $X$ Dl does but with rather specific implications: the series of nvmba etc. implies a move of the benefactor towards the benefacted person marked; the series of pan etc. implies that the benefacted person marked will move towards the benefactor in order to possess the object desired. The two are united in at least one more aspect of their meanings: the idea of"place", which is of fundamental importance in the simple verb root pV, "to put" underlying both series of object marking roots. When nvmba etc. show up, the object desired will be brought toward the place where the benefacted person is; when pan etc. are
found, the benefacted person must get his desired object at the place where the benefactor puts it.

XI Composite Verbs

XI A Verbs marking the combination of action and motion Composite verb forms marking the combination of action and motion show up in Western Dani as in the other languages. Generally, the second part of a composite verb is a form of one of two verbs, meaning "to come" and "to go" which follows the motion stem (43).

Examples :

```
    wundi wage (first root wund "to go out") "To come out"
    wunini nage (first root wunin "to light") "to go lighting"
```

XI B Progressive aspect
The category of composite verbs indicating progressive aspect is more widely developed in Western Dani than in the two other languages. The general formula of this category, however, is the same: one finds the root of a simple verb followed by a durative morpheme, and a second verb root followed by tense and person or aspect markers. Noteworthy is the correspondence between the number of the durative morpheme and the person marker of the second component; this is a phenomenon peculiar to Western Dani, since none of the other languages differentiates as to the number of the durative morpheme.

As the root of the second morpheme we find in many cases na cognate with la in the other languages (44), generally indicating the progressive aspect of a completed action, and followed by past tense markers; if the progressive aspect of a present action is indicated, the root mVn is found followed by markers of the first or second past tenses; progressive aspect in the future is indi= cated if as second component the root logo followed by future tense markers is found.

As in other instances, an exhaustive description of this
category would lead us too far into the peculiarities of Western Dani.
Besides, this seems to be more a matter of syntax than of morphology, because the specialization of meaning , dependent on the choice of the second component, more than on the formal characteristics of the different types of combination, should be accounted for by syntactical analysis.

## XI Conclusion

The summary of Western Dani verb morphology shows that the same concepts which proved to be fruitful in the analysis of Yali and Grand Valley Dani, are of use in the approach of Western Dani also. Of these concepts, especially those of the verb root as essential in the morphology of the verb and of the word accent as an important border marker must be mentioned, although the relevance of the latter was not especially stressed in the preceding pages.

On the whole, the structure of Western Dani verb is similar to the one found in the other two languages. We We have noticed the occurence of the major tense, mode and actor categories, which, moreover, often showed formal correspondence with their counterparts in Yali or Grand Valley Dani. Most categories without indication of actor, as described for the other languages in chapter 5 of this volume, were found in Western Dani also; this was the same In the case of the compound verbs. On the other hand, we have met some remarkable differences also, such as the absence ofperson marking in the irrealis category and the presence of a fifht series of object-marking roots in compound verbs.

Although the given survey as stated points to the close relationship of Western Dani to the other languages, there remains quite a bit of analysis to be done. Notably, the system of the composite verbs, which seems to be rather elaborately worked out one in this language, was hardly touched upon in the preceding sections. It might even be that careful analysis of the data in this respect would
show a partial restriction of morphological categories in Western Dani, as compared with the other languages, accompanying a specialization of its system of composite verbs. Presently, however, this suggestion is still hidden in the material.

Our final conclusion is, consequently, that Western Dani awaits further investigation.

## Appendix III

Texts
On the following pages three Yali texts and one Dani text are given. This substitutes for the description of Yali (or Dani) syntax, which would have taken another study the size of the preceding one; the description of syntax, moreover, does not fall within the scope of the present study, which focuses on morphology. The purpose of Appendix III is to give interested readers an impression of the way in which the forms described in this book are really found in the context of sentences. To facilitate the recognition of the forms $I$ have added numbers indicating the sections where the morphological categories are mentioned earlier in this study. Following each text with its transliteration is an English translation. (other Yali texts in Z8llner 1977, pp. 532 ff.)

Yali texts
I
$\begin{array}{lllllll}\text { 1. Eke alem } & \text { misig, } & \text { it } & \text { Abanaho } & \text { ap } & \text { wan endetuk (5.9) } \\ \text { and a case one, } & \text { they Abanaho man pig to give birth }\end{array}$ $\begin{array}{llllll}\text { atlug ( } 5.3 \text { ), mo laharuk amburuk } & \text { anggolo endetuk } \\ \text { progr. asp. sun to rise to go down many } & \text { to give birth }\end{array}$ $\begin{array}{llll}\text { atlug, } & \text { it ap_suon (3.3.4) wam unde } & \text { etnowen } \\ \text { progr. asp. } \quad \text { they men big } & \text { pig ritual specialist }(3.5 .2)\end{array}$
ap nin hinog yig-isaruk (6.8.1) apag (7.2). man other question to tell 3 pp object progr. asp.
2. Wam arat enderehep (4.3.1) uruk halug (5.3), pig ready to give birth-? pp actor- to say seeing
arat enderehe-o (4.3.1) uruk ready to give birth-1 pp actor-direct speech marker to say $\begin{array}{lllll}\text { isalug (5.3) } & \text { iren (3.5.2) } & \text { hweap } & \text { utag } & \text { doron (3.5.4) } \\ \text { seeing } 3 \mathrm{pp} \text { object } & \text { they } & \text { women } & \text { child } & \text { little }\end{array}$ $\begin{array}{lll}\text { etno inesanggo (3.3.3) holuk (5.2) nowen } \\ & \text { their ears } & \text { to hear in order that not "saying" }\end{array}$ herako (5.7)-at wam nahuk (4.3.5) ulug it secretly demonstr. pig to eat, 1 pp actor "saying" they ap inakeleg (3.3.3)-at abug uruk apag man on their own plan to say progr. asp.

| 3. Abug ulug | wam e | kahaluog (4.3.8) ulug |
| ---: | :--- | :--- | :--- | :--- |
| plan "having said" pigg fire-wood | to split | "saying" |


| nin | watiug (5.3) | kuruk | apag |
| :--- | :--- | :--- | :--- |
| other | to kill | to enter | progr. asp. |

$\begin{array}{lllll}\text { 4. Orom } & \text { inim baloko (5.7) walug (5.3) kulug (5.3) } \\ \text { sweet potato } & \text { also to cut } & \text { to take } & \text { to enter }\end{array}$

| wam etno waroko (5.7) | esetuk (5.9) wilil (5.5), <br> pig to kill$\quad$ to cook | whilst | house |
| :--- | :--- | :--- | :--- | :--- |



$\begin{array}{llllll}\text { 9. Watlug (5.3) wam esanggo inim, ahe inim, etno } \\ \text { to kill } & \text { pig ear } & \text { also } & \text { tail also } & \end{array}$

| usa-roho (5.7) | hunumu | wu | alma | imbik (5.8) |
| :---: | :---: | :---: | :---: | :---: |
| as taboo | cooking house | main pole | in front of | to put |

Kulug (5.3) welapag (4.3.3). to enter to be
10. Irukerat
unscorched
werehma (
to be ), wam etno obog naruk atiug (5.3)

| wam etno ilikia | hao | wabuhuk (4.3.5) |
| :--- | :--- | :--- |
| pig | early in the morning day after tomorrow to kill 1 pp act. |  |


| ulug | ilikia | wam haliarlo |
| :--- | :--- | :--- |
| "saying" | early in the morning | pig belonging to the spirits |


| watuk | apag. |
| :--- | :--- |
| to kill | progr. asp. |

11. Ap dohaleg (5.6) kulug (5.3) wam haliarlo
man to gather to enter pig belonging to the spirits
watuk apag.
to kill progr. asp.
$\begin{array}{lllll}\text { 12. Warepfulug (6.6), ininggik (3.3.3) biren henahan welatlug (5.3) } \\ \text { to kill } & \text { their hands } & \text { two three to be }\end{array}$

| ap huso | etno inibam (3.3.3) wilip | inabul (4.3.4) |  |
| :--- | :--- | :--- | :--- | :--- |
| man foreigner |  | their houses | to send 1 pp actor 3 pp obj. |


| ulug, | umak | apag. |
| :--- | :--- | :--- |
| "saying" | to say | progr. asp. |





## Translation

1. And now an other story: when the people of Abenaho had bred pigs for many years, the leaders, who were pig feast specialists, asked the other men:
2. "Have you bred enough pigs?" If they answered that question with:"We have bred enough pigs", then the men, while realizing that the women and little children should not hear it, and that they secretly should eat the pigs, made plans on their own.
3. After having made the plans, they killed some pigs and came in to perform [the ceremony of] the splitting of the firewood for the pigs.
4. Before coming in they also cut sweet potatoes, and took them. $T$ hen, after killing the pigs, while they were cooking them, they put upright
in the porch of the men's house sugar cane and fire wood, which they had split, and then all the men danced and samg in order to perform the ritual; when the women saw them doing this, they knew: today the men have planned the pig feast.
5. After they had come to know this, the foreigners from Hubulama and Ilukwa were sent for and invited to come; then all of them came in.
6. After they had come in, during a month they were producing fire wood, pulling leaves [to make a good meal base], and cutting trees in such a way, that they became tired of it; then, realizing that they would kill the pigs the following day, some other men killed some of their taboo pigs by way of [starting the feast by the killing of ] holy pigs.
7. And they put some sweet potatoes in the men's houses, to be eaten together with the pigs; others were put outside on a frame of trees.
8. Early the next morning, while they were kil.ing the pigs, some women's pigs were killed also and some men's pigs were killed also.
9. After the killing they took the pig's ears and tails into the cooking house and put them as fetishes in front of the main pole.
10. They didnot scorch the hair on them.Then, when they had eaten all these pigs, they said "we will kill the pigs early in the morning of the day after tomorrow", and killed early in the morning the pigwhich belonged to the spirits.
11. Only after a whole crowd of the men had gathered, they killed that spirit pig.
12. Some two or three days after this killing, they said: "We should send the foreigners home".
13. And the man who split the fire wood for the pigs, the pig feast specialist, drank no water.
14. He drank no water in order that there might be no rain.
15. Only after he had seen that the foreigners had already gone homewards did he drink water.
16. And the pig's ears and tails were cooked as [part of the ceremony of ] the pig's [garden-]ground meal.
17. And some men who were killing their big pigs for themselves took a small one for [the fetish of] the spleen and gave it a name.
18. And after those men had gone,for the occasion of the putting [apart] of the taboo pigs, they put necklaces [as fetishes] on themselves.
19. All the men of that clan were selected, and entered together with all their children; after they had entered they put on the necklaces.
20. And those men, because it was a taboo ritual, had them [i.e. the necklaces] put on by only one man.
21. When that was all finished, they put one pig (apart) saying that they should work with dirty hands in the garden; and after they had called for the garderhelp [on the occasion of that ceremony], all the men cooked.
22. And then, after they had eaten, on the occasion of ceremonies of the hiding of the pig's meat and the hioing of the beast itself, their wives, on their own, also cookedand ate. Now it is finished.

## II

In the following short conversation two speakers participate; they are indicated by $A$ and $B$.
A. 1. Hwe misthen $(3.3 .5 .2)$ wam heal warehekma $(4.3 .1 / 4.3 .10 .2)$
woman one pig poison to kill 3 ps actor
hele warehesa $(4.3 .1)$
rope to bind 3 pp actor.
B. 2. Ehesa ari, demat sehekma $(4 \cdot 3 \cdot 1 / 4 \cdot 3 \cdot 10.2)$
to say 3 pp actor that really to do 3 pp actor
ehesa (4.3.1)
to say 3 pp actor
A. 3. Eleg, etno inenggal-at obam (3.3.3)
no their lying prefixed postposition
$\begin{array}{ll}\text { dengelehesareg }(4 \cdot 3 \cdot 1 / 4 \cdot 3 \cdot 10.1) & \text { hele warepfeheson }(6.6 / 4 \cdot 3 \cdot 1 / \\ \text { to (be-) smear } 3 \mathrm{pp} \text { actor } & \text { rope to bind }\end{array}$
$\begin{array}{ll}\text { oke, hele wareg (5.6) wereg (5.6). } \\ \text { indeed rope to bind } & \text { to be }\end{array}$


misig $\quad \underset{\text { ogaimag }}{\text { one }}$ to give
15. Aren (3.3.5.2) onggo umbukah-soho (6.8.1/5.7)

eleg-a.
not
A.17. Arat ehekon (4.3.1/3.3.4) oke $\begin{array}{lll}\text { reno } & \text { hawa } \\ \text { ready to say } 3 \mathrm{ps} \text { actor } & \text { indeed tomorrow day after }\end{array}$ hibiluhup (4.3.5)
to untie 3 pp actor
0000000000000000000

| A.18. Etno | arat hibilip-fehesama $(6.6 / 4.3 .1 / 4.3 .10 .2)$ | hehe $(4.3 .1)$ |
| :--- | :--- | :--- |
| ready | to untie 3 pp actor | to see 1 pp |
|  |  | actor. |

B. 19. $\underset{\substack{\text { Hal ug (5.3) } \\ \text { to see }}}{\text { fano. }}$

## Translation

A. 1. They have tied up a woman after she had poisoned a pig.
B. 2. What they said, did they say it after she had really done it?
A. 3. No, they falsely accused her and then tied her; that's why she is there tied up.
4. They said that she will sleep outside.
B. 5. How is it possible that they said it.
6. Did they say it although she was innocent, or because she had really cione it ?
A. 7. We in fact do not know, but thoy accused her, saying that she had used poison, and then tied her up.
8. And she has already slept two nights outside. They ticd her up to a tree, and she is still there.

B．9．And when will they untie her and bring her down？
A．10．＂After awhile they will bring her down＂，they said．
B．11．What is the reason thereof？Did she pay her penalty or not？
A．12．They will pay the penalty tomorrow or the day after．She is still． planning to pay．
13．But she is short of pigs．
14．So，if somebody has pity on her he should give her one pig，
15．In order that she might pay her penalty．
B．16．And did she say＂I will pay the penalty＂，or not？
A．17．She indeed said so already，but tomorrow or the day after they will untie her．

0000000000000000
A．18．We have seen，that they untied her already．
B．19．If so，then it is all right．

III
In the following story men's names have been replaced by letters.
$\begin{array}{lllllll}\text { 1. It } & \text { amuk } & \text { ap } & \text { Wuruwion (3.3.4) } & \text { etno } & \text { yabuk } & \text { o } \\ \text { they } & \text { formeriy } & \text { man } & \text { from Wuruwi } & & \text { garden work place }\end{array}$

| Wuruwi epma suruk elehma (3.3.5.1) | it |
| :--- | :--- | :--- | :--- |
| Wuruwi there to do not | they |
|  |  |



wapag ( $4 \cdot 3 \cdot 3$ ).
to come 3 pp actor.
2. Kik wapareg (4.3.10.1) inim orom werako (5.7) to enter to come 3 pp actor also sweet potato to roast
$\begin{array}{llll}\text { nenggeg (5.6) suruk apareg, } & \text { inim lahakeg (5.6) } \\ \text { to eat } & \text { to do progr. asp., also to go upward }\end{array}$
amheheg (5.6) suruk welaparseg (4.3.j/4.3.10.1), o Hulikma
to go down to do to stay, to be, 3 pp actor, place $H$.
etno yabuk farik (5.8) kebag (4.3.3). garden work to take hold of to enter 3 pp actor.
$\begin{array}{llll}\text { 3. Farik } & \text { kebareg } & \text { it } & \text { ap } \\ \text { to take hold of } \\ \text { to enter } 3 \mathrm{pp} \text { actor } & \text { they man other }\end{array}$

| lahik (5.8) | manjek $(4.3 .7)$ | ebahma $(4.3 .3 / 4.3 .10 .2)$ | it |
| :--- | :--- | :--- | :--- |
| to go upward | to come | to say 3 pp actor |  |

Wuruwion (3.3.4) etno lahabag (4.3.3.)
from W.
to go upward.
$\begin{array}{rllll}\text { 4. Lahabareg } & \text { inim } & \text { yabuk } & \text { dambuk-soho (5.7) surukmu, } \\ \text { to go upward also garden work } & \text { togethes } & \text { to do }\end{array}$ nin Hobahmon (3.3.4) nin lahabag (4.3.3). other from H. other to go upward.



## Translation

1. Formerly, when the people from Wuruwi had not yet made gardens on that place Wuruwi, they came down to start the garden work; and when they were doing that, a man from Landikma named $X$ came in, saying "We will make peace".
2. After he had come in, they, with him, roasted and ate sweet potatoes and after having done that, he stayed with them, going upward and downward, and they entered the place Hulikma to start the garden work there.
3. After they had entered to start the work, they said to other men: "Come up", and then the people from Wuruwi also went upward.
4. After they had gone upward, they worked together in the gardens, and other people from Hobahma came up also.
5. When they were doing the garden work together, and while they were doing that, the people from Ulfuhubuk came and killed the Abenaho folks.
6. They also killed the Hobahama folks.
7. They also killed some people from Landikma.
8. After having killed them, they went to Ulfuhubuk; after they had gone, an Abenaho woman who was stabbed with a lance, came down to wuruwi to call for help.
9. After she had come down, all the men there called also the Ilukwa men for help and went upward to cremate them [i.e. the victims].
10. And other men from Landikma came all to Wuruwi.
11. After they had come, they also joined the fight in Landikma and killed others.
12. And the men from Landikma came to Abenaho and brought with them the hands cut off from the corpses of two men.
13. After they had come, they also joined with us, to fight together the Ulfuhubuk men with us ; in the fight the people from Abenaho killed quite a lot of them.
14. And after they had made peace together with us, they killed many of our folks.
15. And they tooksome killed bodies] to Abahapsili to cook them.
16. And later, after that time, when we had finished the war, I mean, when they had finished the fight, a man $Y$ and - eh, who was it again? - they called for a war and entered Ulfuhubuk, killingpeople.
17. At that time they felled $Y$ by axing him and $Z$ by stabbing him with lances.
18. By that time the police had brought us all together, and the war was definitely over.
19. Now I am finished.

IV A specimen of Dani text.
By the courtesy of Dr. H.L. Peters and the publishers Dekker and Van de Vegt $I$ am able to print below parts of one of the very few published Dani texts. I thank them for their permission to use the text.
The text printed here consists of sentences taken from a discourse which was uttered during a ceremony of the ritual renewal of strength represented by the ancestor-ganege; these fetishes-long, flat stones in this case- are addressed by several speakers, who sometimes use cryptic speech. As Peters remarked, there are several "grammatical irregularities" in the following account, which surely do not make it less vivid.
I selected the following lines and added numbers to members of categories as in the Yali texts.


| e | wam hakhylyk (5.9.1) | Iano (4.3.7.3) 3. Jetak |
| :---: | :---: | :---: |
| this | pig to own, to touch | progr.asp. shell string |

hakhylyk(5.9.1)
to own
$\frac{\text { lano (4.3.7.3) }}{\text { progr. asp. }} \underset{\text { shell mother }}{\text { akosa }} \underset{\text { big to own }}{\text { gok }} \underset{\text { hakhano }}{\text { m.5.1 }}+4.3 .7 .3$ )
4. $\frac{\text { Ninakot }}{\text { our younger brother }} \quad \frac{\text { akmu-nen }}{\text { pity }}(3.3 .5 .4) \quad \frac{\text { wakasik }}{\text { to come } 3} 3$ ps actor

$\frac{\text { leket-opa }}{\text { fence postposition with prefix }}$ while


```
jiluku huluku-at wokhesuak(6.3.2 +6.8.3 +4.3.7.3)
many to give
```

| nayt(3.3.3.1) |  |
| :--- | :--- |
| my dislike | to say |
| to | .8.1) |
| there | woman |
| demonstrativum |  |

$\frac{\text { at }}{\text { he }} \frac{\text { ake }}{\text { wife }}(3.3 .3 .1){\underset{m y \text { nusband }}{\text { nakoin }}(3.3 .3 .1)}_{\text {at }}^{\underbrace{\text { uak }}_{\text {to }}(4.3 .7 .3)}$
16. $\left.\left.\frac{a n}{I} \frac{\text { el }}{\text { sugar cane }} \frac{\text { balikiluk }}{\text { to cut }} 4.3 .8 .1\right) \frac{\text { wesikin }}{\text { to come }} 4.3 .4 .1\right)=\frac{\text {-at }}{\text { to }}$
$\frac{\text { athy }}{\text { demonstrativum }} \frac{\text { nenaluk. }}{\text { why }}$ 17. $\frac{\text { he }}{\text { women }} \frac{\text { lek }}{\text { not }} \frac{\text { wam }}{\text { pig not }}$

```
watok-en(3.3.5.4) wahytik(4.3.9 + 4.3.10.2) 18.
like to come
```

$\left.\left.\frac{\text { nakho }}{\text { my pig }} 3.3 .3 .1\right) \quad \underset{\text { your belly }}{\text { helaput }}=.3 .3 .1\right) \frac{\text { muluk-at }}{\text { big }} \frac{\text { atne(4.3.7.3); }}{\text { to become }}$

```
waluwke-at nykhy(5.9.1) lokoino(4.3.7.3)
bend forward to eat to stay(prog.asp.)
```

Translation.

1. [said to a festish representing a pig:] Your belly should not disappear; because my hands are not very fit for making garden beds, your belly must become nice. 2. My family must own pigs. 3. They must own shell-strings; they must own
big "mother" shells. 4. [said with respect to the spirit of a dead man]: Our younger brother, who has come out of pity, should cut a sow here and give it to us. 5. Of course, don't they have pity? 6. Isaid to another spirit:] My older brother, because you are on the top [of a tree] send us some of them. 7. Doesn't he have some? 8. [said with respect to a fetish] I shall make a taboo against sickness caused by spirits; I shall make a taboo against mosquitoes and flies. 9.Isaid to an ancestor-spirit in order to avert the influence of bad spirit]: Because pigs always die, your hand should shut them [i.e. the bad spirits] off; you, your hand must shut them off: lo. Only if we become hungry will we kill them and continuously eat them. ll. Let the village not be set on fire; why? You must cut off the rungs [of the fence] for me. 12. All these you must untie with your hand, whileyou stay on the fence. 13. 【Said by somebody:] I like women, I like pigs. 14.[answer:] Those women, they should give them to you in great numbers; let them not say "I don't like it". 15. [other speaker:] Those women there, are they his wives? Let them say: "My husband".16. [other speaker:] I shall come for [the ceremony of] the cutting of the sugar cane, why? 17. [answer:] No women, no pigs; but I like them; so $I$ came. 18. [finishing words to the pig fetish:] My pig, your belly should become big; you must stay eating, bend forward.

Appendix IV

## Paradigms

The following paradigms show forms of object marking verbs; all four series of object marking secondary roots are included. As primary roots $I$ choose del and its causative stem delep, both meaning "to pour out", og, meaning "to give", and kolap, meaning "to put into", "to look inward". Not included in the next pages are composite forms of object marking verbs - although motion and durative stems are given; inclusion of them would have made this appendix far too long.
Forms of simple verbs are not included either; they can be found in the respective sections on forms with actor categories. The forms with marked actor are given according to the following diagram, unless stated otherwise:

| object | actor | object | actor | object | actor |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 ps | 1 ps | 3 ps | 1 ps |
| 1 ps | 2 ps |  |  | 3 ps | 2 ps |
| 1 ps | 3 ps | 2 ps | 3 ps | 3 ps | 3 ps |
|  |  |  | 1 pp | 3 ps | 1 pp |
| 1 ps | 2 pp |  |  | 3 ps | 2 pp |
| 1 ps | 3 pp | 2 ps | 3 pp | 3 ps | 3 pp |
|  |  | 2 pp | I ps | 3 pp | 1 ps |
| 1 pp | 2 ps |  |  | 3 pp | 2 ps |
| 1 pp | 3 ps | 2 pp | 3 ps | 3 pp | 3 ps |
|  |  | 2 pp | 1 pp | 3 pp | 1 pp |
| 1 pp | 2 pp |  |  | 3 pp | 2 pp |
| 1 pp | 3 pp | 2 pp | 3 pp | 3 pp | 3 pp |

Third past

| 18t_seriea | 2nd_series | 3rd_series | 4th series |
| :---: | :---: | :---: | :---: |
| 3 ps og- epag | kolap-hebag | del-fag | delep-febag |
| 1 ps og-nepag | kolap-ney ebag | del-napag | delep-nahabag |
| 2 ps og-hepag | kolap-hey ebag | del-hapag | delep-hahabag |
| 1 pp og-nisebag | kolap-nisebag | del-ninapag | delep-nisehabag |
| 2 pp og-hisebag | kolap-hisebag | del-hinapag | delep-hisehabag |
| 3 pp og-isebag | kolap-isebag | del-inapag | delep-fisebag |

No other than 3 pp and 3 ps actors are found with these compounds, as is the case with most other verbs (cp ch.4.3.3); in composite verb forms of the types: root-durative stem corresponding with object root-thixd past form, other actors can be found, e.g. og-nituk senag (cp ch.7.2).

Second past, 1st series

| og-nitikin | og-hitikik | og-itikik <br> og-itikin |
| :--- | :--- | :--- |
| og-nitisi | og-hitisi | og-itisi <br> og-hitukuk <br> og-nitikip <br> og-nitusa |
|  | og-hituka | og-itikip |
| og-isarikin | og-hisarikik | og-itusa |
| og-nisarisi | og-hisarisi | og-isarikik |
| og-isarikin |  |  |
| og-nisarikip | og-hisarukuk | og-isarisi <br> og-isarukuk <br> og-nisarusa |
|  | og-hisarikip |  |

Second past, 2nd series

|  | kolap-hearikik | kolap-harikik |
| :--- | :--- | :--- |
| kolap-nearikin |  | kolap-harikin |
| kolap-nearisi | kolap-hearisi | kolap-harisi |
|  | kolap-hearukuk | kolap-harukuk |


| kolap-nearikip |  | kolap-harikip |
| :--- | :--- | :--- |
| kolap-nearusa | kolap-hearusa | kolap-harusa |
| kolap-nisarikin | kolap-hisarikik | kolap-isarikik |
| kolap-nisarisi | kolap-hisarisi | kolap-isarikin |
|  | kolap-hisarukuk | kolap-isarisi |
| kolap-nisarikip |  | kolap-isarukuk |
| kolap-nisarusa | kolap-hisarusa | kolap-isarusa |

## Second past, 3 rd series

del-haptikik

| del-naptikin |  |
| :--- | :--- |
| del-naptisi | del-haptisi |
|  | del-haptukuk |

blockaded by simple
verb forms
del-naptikik
del-naptusa
del-haptusa
del-hinaptikik
del-inaptikik
del-ninaptikin
del-ninaptisi
del-hinaptisi
del-hinaptukuk
del-inaptikin
del-inaptisi
del-inaptukuk
del-inaptikip
del-inaptusa

## Second past, 4 th semies

|  | delep-haharikik | delep-firikik <br> delep-naharikin |
| :--- | :--- | :--- |
| delep-naharisi | delep-haharisi | delep-firikin <br> delep-haharukuk |
| delep-naharikip |  | delep-furukuk <br> delep-firikip |
| delep-naharusa | delep-haharusa | delep-furusa |
|  | delep-hisaharikik | delep-fisarikik |
| delep-nisaharikin |  | delep-fisarikin |
| delep-nisaharisi | delep-hisaharisi | delep-fisarisi <br> delep-hisaharukuk |
| delep-fisasukuk |  |  |
| delep-nisaharusa | delep-hisaharusa | delep-fisarikip <br> delep-fisarusa |

First past, 1st sexies

|  | og-hirihi | og-irihi |
| :---: | :---: | :---: |
| og-nerehen |  | og-erehen |
| og-neherek | og-herehek | og-eherek |
|  | og-herehe | og-erehe |
| og-neherep |  | og-erehep |
| og-neheresa | og-herehesa | og-erehe |
|  | og-isihi | og-lsisi |
| og-nisehen |  | og-isehen |
| og-nisehek | og-isehek | og-isehek |
|  | og-isehe | og-isehe |
| Of-nisehep |  | og-isehep |
| og-nisehesa | og-isehesa | og-asehesa |
| First past, 2nd series |  |  |
|  | kolap-hiyihi | kolap-hihi |
| kolap-neyehen |  | kolap-hehen |
| kolap-neyehek | kolap-heyehek | kolap-hehek |
|  | kolap-heyehe | kolap-hehe |
| kolap-neyehep |  | kolap-hehep |
| kolap-neyehesa | kolap-heyehesa | kolap-hehesa |
|  | kolap-hisihi | kolap-ısihi |
| kolap-nisehen |  | kolap-isehen |
| kolap-nisehek | kolap-hisehek | kolap-isehek |
|  | kolap-hisehe | kolap-isehe |
| kolap-nisehep |  | kolap-isehep |
| kolap-nisehesa | kolap-hisehesa | kolap-1sehesa |

## First past, 3rd series

del-habihi

| del-nabehen <br> del-nabehek | del-habehek <br> del-habehe |
| :--- | :--- |
| del-nabehep | del-habehesa |

verb form
blockaded by simple

| del-inabehen | del-hinabihi | del-inabihi |
| :--- | :--- | :--- |
| del-ninabehek | del-hinabehek | del-inabehen |
| del-ninabehep | del-hinabehe | del-inabehek |
| del-ninabehesa | del-hinabehesa | del-inabehep |
|  |  | del-inabehesa |

First past, 4th series

| delep-hahaken |  |
| :--- | :--- |
| delep-nahakek | delep-hahaki |
| delep-nahakep | delep-hahakek |
| delep-hahake |  |
| delep-nahakesa | delep-hahakesa |
| delep-nisahaken | delep-hisahaki |
| delep-nisahakek | delep-hisahakek |
| delep-nisahakep | delep-hisahake |
| delep-nisahakesa | delep-hisahakesa |

First future, 1st series

|  | og-hipmin | og-ipmin |
| :--- | :--- | :--- |
| og-nipmihin | og-ipmihin |  |
| og-nirikon | og-hirikon | og-irikon |
| og-nitlihip | og-himull | og-imul |
| og-nimukon | og-itlihip |  |
|  | og-himukon | og-imukon |
| og-nisamihin | og-hisamin | og-isamin |
| og-nisikon | og-hisikon | og-isamihin |
| og-nisalihip | og-isikon |  |
| og-nisukon | og-hisukon | og-isul |

First future, 2nd series

| kolap-neamihin | kolap-heamin | kolap-himin |
| :---: | :---: | :---: |
|  |  | kolap-himihin |
| kolap-niyikon | kolap-hiyikon | kolap-hikon |
|  | kolap-heamul |  |
| kolap-nealihip |  | kolap-hul |
| kolap-niyukon | kolap-hiyukon | kolap-hilihip |
|  |  | kolap-hukon |
|  | kolap-hisamin | kolap-isamin |
| kolap-nisamihin |  | kolap-isamihin |
| kolap-nisikon | kolap-hisikon | kolap-isikon |
|  | kolap-hisul | kolap-isul |
| kolap-nisalihip |  | kolap-isalihip |
| kolap-nisukon | kolap-hisukon | kolap-isukon |

First future, 3rd series

| del-napmihin |  | blockaded by simple |
| :---: | :---: | :---: |
| del nabikon | del-habikon | verb forms |
|  | del-habul |  |
| del-naplihip |  |  |
| del-nabukon | del-habukon |  |
|  | del-hinapmin | del-inapmin |
| del-ninapmihin |  | del-inapmihin |
| del-ninabikon | del-hinabikon | del-inabikon |
|  | del-hinabul | del-inabul |
| del-njnaplihip |  | del-inaphilip |
| del-ninabukon | del-hinabukon | del-inabukon |
| First future, 4 th series |  |  |
|  | delep-hahamin | delep-fimin |
| delep-nahamihin |  | delep-fimihin |
| delep-nahikon | delep-hahikon | delep-fikon |
|  | delep-hahmul | delep-ful |
| delep-nahalihip |  | delep-filihip |
| delep-nahukon | delep-hahukon | delep-fukon |


|  | delep-hisahamin | delep-fisamin |
| :--- | :--- | :--- |
| delep-nisahamihin |  | delep-fisamihin |
| delep-nisahikon | delep-hisahikon | delep-fisikon |
| delep-nisahalihip |  | delep-fisamul |
| delep-nisahukon | delep-hisahukon | delep-fisalihip |
|  |  | delep-fisukon |

Second future, 1 st series
\(\left.$$
\begin{array}{lll}\text { og-niruhun } & \text { og-himuhuk } & \begin{array}{l}\text { og-iruhuk } \\
\text { og-iruhun }\end{array} \\
\text { og-niruhu } & \text { og-hiruhu } & \begin{array}{l}\text { og-iruhu } \\
\text { og-imuhuk }\end{array} \\
\text { og-niruhup } & \text { ogimuhuk } & \begin{array}{l}\text { og-imuhup } \\
\text { og-niruhup }\end{array}
$$ <br>

og-imuhup\end{array}\right]\)| og-isahuk |
| :--- |
| og-nisahun |
| og-nisahu |

Second future, 2nd series

|  | kolap-heahuk | kolap-hahuk |
| :--- | :--- | :--- |
| kolap-neahun | kolap-hahun |  |
| kolap-neahu | kolap-heahu | kolap-hahu |
| kolap-neahup |  | kolap-hahuk <br> kolap-hahup |
| kolap-neahup | kolap-heahup | kolap-hahup <br> kolap-hisahuk |
| kolap-nisahun |  | kolap-isahuk <br> kolap-isahun |
| kolap-nisahu | kolap-hisahu | kolap-isahu |
| kolap-nisahup | kolap-hisahuk | kolap-isahuk <br> kolap-isahup |
|  |  | koalp-isahup |

Second future, 3rd series

[^0]blockaded by simple verb forms

| Jol-rabuhis | del-habuhu |  |
| :---: | :---: | :---: |
|  | ds.1-haburnuk |  |
| de 1-riatuhup |  |  |
| del-nabuhup | del-habuhup |  |
|  | del-hinabuhuk | del-inabuhuk |
| del-ninabuhun |  | del-inabuhun |
| del-ninabuhu | del-hinabuhu | del-inabuhu |
|  | del-hinabuhuk | del-inabuhuk |
| del-ninabuhup |  | del-inabuhup |
| del-ninabuhup | del-hinabuhup | del-inabuhup |

Second future, 4th series

|  | delep-hahakuk | delep-fuhuk <br> delep-nahakun <br> delep-nahaku |
| :--- | :--- | :--- |
| delep-fuhun |  |  |

Irrealis, 1st series

| og-nitlen | og-hitle | og-itle <br> og-itlen |
| :--- | :--- | :--- |
| og-nitlep | og-hitlep | og-itlep |
| og-hitlo | og-itlo <br> og-itlep |  |
| og-nitlep | og-hitlep | og-itlep |
| og-niselen | og-hisele | og-isele |
| og-niselep | og-hiselep |  |
|  | og-hisolo | og-isolo |


| og-nizelep |  | og-iselep |
| :---: | :---: | :---: |
| rffurimajup | Of-hiselep | og-iselep |

Irrealis, 2nd series

|  | kolap-hiyele | kolap-hele |
| :--- | :--- | :--- |
| kolap-niyelen | kolap-helen |  |
| kolap-niyelep | kolap-hiyelep | kolap-helep <br> kolap-hiyolo |
| kolap-niyelep |  | kolap-helep |
| kolap-niyelep | kolap-hiyelep | kolap-helep |
| kolap-hisele | kolap-isele |  |
| kolap-niselep | kolap-hiselep | kolap-iselen <br> kolap-iselep |
| kolap-niselep | kolap-hisolo | kolap-isolo <br> kolap-niselep |

Irrealis, 3rd series
del-haple
del-naple
del-naplep
del-haplep
del-haplo
blockaded by simple verb forms
del-naplep
del-naplep
del-ninaplen
del-ninaplep
del-haplep
del-hinaple
del-hinaplep
del-hinaple
del-ninaplep
del-hinaplep
del-inaplep
del-ninaplep
del-ninaplep
del-hinaplep

Irrealis, 4th series

| delep-hahale | delep-fele <br> delep-nahalen |
| :--- | :--- |
| delep-felen |  |


| delep-rahalep | delcp-hahalep | delep-felep |
| :--- | :--- | :--- |
| delep-nahalep | delep-hahalo | delep-folo |
| delep-nahalep | delep-felep |  |
|  | delep-hahalep | delep-felep |
| delep-nisahalen | delep-hisahale | delep-fisale |
| delep-nisahalep | delep-hisahalep | delep-fisalen |
| delep-nisahalep | delep-hisaholo | delep-fisolo |
| delep-nisahalep | delep-hisahalep | delep-fisalep |

Hortative, 1 st series

| og-nimin | og-hirik | og-irik |
| :--- | :--- | :--- |
| og-nimag | og-himag | og-imin |
| og-nimiek | og-himuk | og-imag |
| og-nimag | og-imuk |  |
|  | og-himag | og-imiek |
| og-nisimin | og-hisawag | og-imag |
| og-nisawag | og-hisimuk | og-isik |
| og-nisimiek | og-hisawag | og-isawag |
| og-nisawag | og-isimuk |  |

Hortative, 2nd series

|  | kolap-hiyik | kolap-hik |
| :--- | :--- | :--- |
| kolap-niyimin | kolap-neawag | kolap-heawag |
| kolap-niek | kolap-hiuk | kolap-hawag |
| kolap-neawag | kolap-heawag | kolap-huk |
| kolap-nisimin | kolap-hisik | kolap-hiek |
| kolap-nisawag | kolap-hisawag | kolap-isik |
|  | kolap-hisimuk | kolap-isimin |
|  |  | kolap-isawag |


| kolap-nisimiek |  | kolap-isimiek |
| :--- | :--- | :--- |
| kolap-nisawag | kolap-hisawag | kolap-isawag |

## Hor tative3rd series

del habik

| del-nabin |  |
| :--- | :--- |
| del-nabukag $\quad$ |  |
|  | del-habukag |
| del-habuk |  |

blockaded by simple verb forms
del-nabiek
del-nabukag del-habukag
del-ninabin
del-hinabik
del-inabik
del-ninabukag
del-hinabukag
del-hinabuk
del-ninabiek
del-ninabukag
del-hinabukag
del-inabin
del-inabukag
del-inabuk
del-inabjek
del-inabukag

Hortative, 4th series

| delep-nahin | delep-hahik | delep-fik <br> delep-fin |
| :--- | :--- | :--- |
| delep-nahukag | delep-hahukag | delep-fukag <br> delep-hahuk |
| delep-nahiek |  | delep-fuk <br> delep-fiek |
| delep-ninahin | delep-hahukag | delep-fukag |
| delep-ninahukag | delep-hinahukag | delep-fisik |
| delep-ninahiek | delep-hinahuk | delep-fisin <br> delep-ninahukag |
| delep-hinahukag | delep-fisuk |  |
| delep-fisiek |  |  |

Deferred hortative, 1st series

| og-nimuk | og-imuk |
| :--- | :--- |
| og-nisimuk | og-isimuk |


| Deferred hortative, nd series <br> kolap-niyimuk kolap-himuk <br> kolap-nisimuk kolap-hisimuk |  |
| :--- | :--- |
| Deferred hortative, 3rd series |  |
| del-nabiuk blockaded by simple verb forms <br> del-ninabiuk del-inabiuk |  |
| Deferred hortative, 4th sexies |  |
| delep-nahiuk delep-fuk <br> delep-nisahiuk  | delep-fisuk |

## Intentional aspect, 1 st series

| og- iriog | og-hiriog | og-iriog |
| :--- | :--- | :--- |
| og-nimuog | og-himuog | og-imuog |
| og-nisiog | og-hisiog | og-isiog |
| og-nusuog | og-hisuog | og-isuog |

Intentional aspect, 2nd series
No data available

Intentional aspect, 3rd series

| del-nabiog | del-habiog | blockaded by simple |
| :--- | :--- | :--- |
| del-nabuog | del-habuog | verb forms |
| del-ninabiog | del-hinabiog | del-inabiog |
| del-ninabuog | del-hinabuog | del-inabuog |

## Intentional aspect, 4th series

| delep-nahiog | delep-hahiog | delep-fahiog |
| :--- | :--- | :--- |
| delep-nahuog | delep-hahuog | delep-fahuog |
| delep-nisahiog | delep-hisahiog | delep-fisiog |
| delep-nisahuog | delep-hisahuog | delep-fisuog |


cq-rumi og-hum og-um

Gerund, 2nd series
No data available

Gerund, 3rd sexies

| del-nabuk | del-habuk | blockaded by simple |
| :--- | :--- | :--- |
| verb forms |  |  |
| del-ninabuk | del-hinabuk | del-inabuk |

Gerund, 4th series

| delep-nahuk | delep-hahuk | delep-fuk |
| :--- | :--- | :--- |
| delep-nisahuk | delep-hisahuk | delep-fisuk |

Perfect participle, 1st series

| og-nitlug | og-healug | og-halug |
| :--- | :--- | :--- |
| og-nisalug | og-hisalug | og-isalug |

Perfect participle, 2nd series
kolap-nealug
kolap-healug
kolap-nisalug
kolap-hisalug
kolap-halug
kolap-isalug

Perfect participle, 3rd series
\(\left.\begin{array}{lll}del-naplug \& del-haplug \& blockaded by simple <br>

verb forms\end{array}\right]\)| del-inaplug |
| :--- |
| del-ninaplug |
| or: |
| del-nasug |
| del-ninasug |

Perfect participle, 4th series

| delep-nahalug | delep-hahalug | delep-fulug |
| :--- | :--- | :--- |
| delep-nisahalug | delep-hisahalug | delep-fisalug |



| ',f-niourar |  |  |
| :---: | :---: | :---: |
|  |  | Of-ische ${ }_{0}^{\text {en }}$ |

Iterative participle, 2nd series

| kolap-neyeheg | kolpa-heyeheg | kolap-heheg |
| :--- | :--- | :--- |
| kolap-niseheg | kolap-hiseheg | kolap-iseheg |

Iterative participle, 3rd series

| del-nabeheg | del-habeheg |
| :--- | :--- |
| del-ninabeheg | del-hinabeheg |

Iterative participle, 4 th series

| delep-nahakeg | delep-hahakeg | delep-feheg |
| :--- | :--- | :--- |
| delep-nisahakeg | delep-hisahakeg | delep-fisaheg |

Durative participle, 1 st series
og-niril
og-hiril
og-nisil
og-hisil

Durative participle, 2nd series
No data available

Durative participle, $3 r d$ series

| del-nabil | del-habil |
| :--- | :--- |
| del-ninabil | del-hinabil |

Durative participle, 4th series

| delep-nahil | delep -hahil | delep-fil |
| :--- | :--- | :--- |
| delep-nisahil | delep-hisahil | delep-fisil |

Motion stem, 1 st series
og-nirik
og-hisik
og-nisa
og-hisa

> og-irik
> og-isa

Motiod stem, 2nd series

| kolap-nea | kolap-hea | kolap-ha |
| :--- | :--- | :--- |
| kolap-hisa | kolap-hisa | kolap-isa |

Motion stem, 3rd series
del-nabik
del-ninabik
Motion stem, 4th_series

| delep-nahik | delep-hahik | delep-fik |
| :--- | :--- | :--- |
| delep-nisahik | delep-hisahik | delep-fisa |

Inarative stem, 1st series

| og-nituk | og-hituk | og-ituk |
| :--- | :--- | :--- |
| og-nisaruk | og-hisaruk | og-isaruk |

Durative stem, 2nd series

| kolap-nearuk | kolap-hearuk | kolap-haruk |
| :--- | :--- | :--- |
| kolap-nisaruk | kolap-hisaruk | kolap-isaruk |

Durative stem, 3 rd sexies

| del-naptuk | del-haptuk | blockaded by simple |
| :--- | :--- | :--- |
| verb forms |  |  |

Durative stem, 4th series

| delep-naharuk | delep-haharuk | delep-furuk |
| :--- | :--- | :--- |
| delep-nisaharuk | delep-hisaharuk | delep-fisaruk |

1. Also known formerly as Dutch New Guinea; on the
linguistic situation on the island in general cf.
Anceaux (1953), Capell (1962), McElhanon and
Voorhoeve (1970) and Voorhoeve (1975).
2. Bromlej (1966).
3. id. p. 303.
4. id. map on p. 308.
5. Van der Stap (1966).
6. id. p. VI.
7. Bromley (1972).
8. Bromley (1961).
9. "Mugogo dialect has its place - phonologically as well as geographically - in between Bromley's "Lower Aikhe Dani" and his "Lower Grand Valley Dani", Van der Stap p. 2.
10. Bromley (1966) p. 287.
11. The term Yali is now in general use for the group languages spoken in the valleys north-east from the Grand (or Balim) Valley, Originally "Yali" stood for "people across the ranges in the east"; the term was applied by Grand Valley Danis to the population know now as Yalis, but also by the nowadays Yalis themselves to their eastern neighbours, which speak a language of a quite different type (cf. Bromley (1966) p. 307 on the soncalled "Goliath-Languages"). In the former times the inhabitants of the north eastern valleys named themselves with local names, but never with the term Yali (cf. Bromley (1961) p. 1 on the term Dani).
12. Bromley (1966) p. 298.
13. Kapia should be located in the neighbourhood of the Apahapsili mission station, cf. map p.XI., possibly on the place where now the Kulet airstrip is.
14.cf. Appendix $I$.
14. The higher percentages of the cognation of Abenaho with Pyramid and both Kapia and Abenabo with Mid Grand Valley are the result of the more intensive cultural contacts of these areas with the Balim valley.

1\%. Eromiey (19f, P) p. 10.
1\%. 14. p. 11.
1\%. Although the two dialects are mutually understandeble, the Landikma speakers sometimes use words, which generally are not used in Abenaho, e.g. malik (L) instead of utag (A), meaning "child", apmon (L) instead of anggimbu (A), meaning "subject" etc. There are some morphological differences also, cf. section 4.3.4.
19. Bromley (1961) pp.16-17.
20. On a Dani community not to far from the Abenaho area cf. Heider (1970) pp.27-30; the word Amenoko there apparently refers to Abenaho. Cf. also Broekhuyse (1967); many of the persons mentioned in this book were knownto Abenaho Yali's, as a check proved.
21. Bromley (1961) p. 6-7.
22. Cf: Bromley(1961) p. 16.
23. cf. Kenneth Pike, Phonemics: A Technigue for Reducing languages to writing, Ann Harbour 1948, p. 208, cited in Bromley (1961) p. 72.
24. Cf. Van der Stap (1966) p. 3 and Bromley (1961) p. VII on Dani practical orthography.

24a. This stop is a good excample of the modification of the phonemic orthography. The reason of the modification isthe occurrence of /r/ in Indonesian, which is contrastive with the dental stop in that language.
25. The labio-velar stops are generally used by speakers, who have contacts with Dani speaking communities.
26. In Abenaho e.g. both he and hwe, or kean and kwean are found, vs. in Angguruk only he or kynang.
27. Probably this remark applies to Dani as well.
28. The differences are honoured in the practical orthography, however: initial $p$ and $t$ in Angguruk correspond to $b$ and $d$ in Abenahoe.g. tom-dom, paltukbaltuk. Within the Abenaho dialect the same phenomenon is observable: phonemes which are more or less voiced, if occurring in initial and intervocalic
position, are about voiceless if occurring in clusters and word final position; this fact also is honoured in the practical orthography.
29. Minimal pairs are e.g. gik verb root, meaning "to strech one's hand", hik "dark(ness)", kik "entering", and ge "to warm one's hands", he "woman", ke "what?".
30. e.g. sega"dlgging stick", o yugul "earth quake", elege "young man".
31. The bilabial stop in apeleg is a special case; originally this is a compound word ap-eleg.
32. cf. note 29.
33. cf. note 30.
34. e.E. fil vs. obil, fam vs. obam.
35. A minimal pair is e.g. obok and obog; cf. also Bromley (1961) p. 26 on /k/ word finally in a Grand Valley Dani dialect.
36. e.g. suruk vs. turuk.
37. e.g. teg/seg/reg cf. section 4.3.10.1.
and toho/soho/roho cf. section 5.7.
38. cf. Bromley (1961) p. 17.
39. Minimal pairs e.g. dum vs. sum
arum vs. asum
daltuk vs. saltuk
40. This is the same in Dani.
41. cf. above p. 7.
42. e.g. in the minimal pair soholuk vs. sohorluk.
43. cf. Bromley (1961) p. 10 and 12.
44. e.g. mirlaltuk and meraltuk, arlik-paleg and arikpaleg.
45. cf. Bromley (1961) p. 9-18 passim.
46. cf. id. p. 10 and $p$. VII; in the Upper Hablifuri area there are now the stations Bokondini and Kelila, cf. map on p . XI.
47. Diphthongs are e.g. ai in aik dahoh-uruk"to chat", where aik is a Dani word, cognate with Yali ayeg (cf. Bromley (1961) p. 92); and au in auk baltuk "to ry"(a person). No diphthongs are present in, e.g.,
the following words, which show sequences of syllabic vowels: eabie, aohi.
48. cf. Bromley (1961) p. 10.
49. Bromley (1961) p. 49.
50. cf. e.g. watisí and watisirég (the latter form shows suffix reg, cf. section 4.3.10.1.)
51. cf. e.g. bal-inaptisi and bál- inaptisirég,i.e. if the forms show the third order morphemes, cf. section 4.3.10.1.
52. e.g. watisi, cf. war-inaptisi.
ahum, cf. ahum-soho.
53. cf. Bromley (1972) p. lll-112, note 5; also Bromley (1961) p. 68 sub 3.22.
54. Bromley (1972) loc. cit. gives examples of the difference in notation e.g. Wokosin (Van der Stap), vs. wok osin (Bromley), laken vs. lak-en etc.
55. cf. pp. 111, 116, 120. 127. 145 and note 273.
56. Van der Stap, p. 2-4.
57. Dani words can be found in the studies of Bromley and Van der Stap, but also in the "Woordenlijst Baliemtaal, samengesteld door contr. F. Veldkamp", which contains words and their tranglation in Dutch and was made in about 1958; evidently the spelling in this list is not the same as the one used by Bromley and Van der Stap. The studies by Peters (1965) and Broekhuyse (1967) also contain short word lists.
58. Van der Stap, p. 3.
59. This absence of word final consonant in Dani, together with the occurrence of the glottal stop in that language, seems to indicate that Yali corresponds more closely to the inferred Proto-Dani than e.g. the lower Grand Valley Dani; cf. Bromley (1961) p. 15 on the glottal stop.
60. cf. Anceaux (1965), p. 8 ff.
61. Van der Stap, p. 2.
62. Van der Stap, ibid.
63. Van der Stap, ibid.
64. Van der Stap, p. 102.
65. Van der Stap, ibid.
66. Van der Stap, p. 94 ff.
67. Van der Stap, p. 83-85.
68. Van der Stap, p. 121.
69. Van der Stap, p. 128.
70. cf. section 4.3.1.1.
71. Van der Stap, p. 1.
72. Van der Stap, p. 144.
73. "... in those cases in which sometimes has to be said about the syntactical aspects of some category or other, this will be done under the heading "Usen! Van der Stap p. 1.
74. Van der Stap, p. 144.
75. All the words mentioned in this section are marked with zero prefix, indicating a relationship with 3 ps, cf. personal prefixes, section 3.3.3.
76. Van der Stap, p. 149.
77. A comparable feature is shown by other Irian languages, cf. Boelaars (1950) p. lll, summary sub. a.
78. Van der Stap, p. 145-146.
79. The term possessive prefixes is used by Van der Stap, p. 146, who also names comparable features just prefixes, id., p. 153.
80. Van der Stap, p. 147.
81. "At further inspection the element a in nabysie, habysie etc. proves present only before a root-morpheme-initial consonant. Because this is always the case we can henceforward omit it from the description", loc.cit.
82. Some exceptional cases are found, e.g. nobene, corresponding with fene, nuhe, corresponding with he
83. Preceding prenasalised $k$ (ngg) $\mathbb{V}$ is $\underline{O}$ also, although ngg is not a bilabial phoneme.
84. cf. the occurrence of element ah in object marking verb forms, sections 6.8.1. and 6.8.2.

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85. Van der Stap, p. 146.
86. id., p. 153.
87. The semantical features which characterize the category of "post- positions with prefixes" are described by Van der Stap as giving "a positional or directional information with respect to the person represented by the person and number-morpheme", ibid. p. I54; such a description is confusing, and does not seperate adequately lexical and morphological features.
88. Van der Stap, p. 150.
89. id. p. 151 sub. 3.
90. Moreover, I found some Dani words, which show element ak as part of the prefix: akik, cf. $1 k$
ahel, cf. el
91. This suggestion is made by Van der Stap, p. 152; in Yali many words showing the sequence ah do not correspond with other words without ah, e.g. ahe, ahum, ahia.
92. The occurrence of on as a marker of verb forms is discussed more broadly in the section 4.3.10.4.
93. Van der Stap, p. 149.
94. id., p. 154.
95. cf. Heider, p. 89 ff.
96. Consequently a word containing on or dek as such is not predictably a member of a special word class; the place andfunction of the word in the sentence indicates to which word class it belongs.
97. cf. section 4.3.10.4.
98. As far as these clitics are concerned, Yali does not show the initial $\underline{m}$. It might have been dropped in former times; presently Western Dani has a reduplicated word ndak-ndak, meaning "as", "like", which semantically is related to the clitic mendek, but does not show $m$. Moreover, Mugogo Dani and Yali coincide in this respect, that both lack the final $k$ of the Western Dani clitic, whilst both have a velar stopmedially instead of the dental stop in the Western Dani counterpart. Also the"element anek" in members of the"category of
the comparative form", Van der Stap, p. 155, probably is related to the Yali clitic angge, , historically speaking, whilst the element dekanek in such a"comparative form" as gokdekanek corresponds very closely to the cited ndak-ndak in Western Dani. 100. This remark extrapolates the use of mu/ma following verb forms, cf. section 4.3.10.3.
99. It might indicate, that time is conceptualized as a kind of position.

102 Cf. the forms marked with deg/seg, section 4.3.10.1. 104. cf. Appendix III. 105. cf. Peters, p. 158. 106. cf. Anonymus, p. 44. 107. id. p. 49. 108. id. p. 47. 109. ibid. 110. ibid.
111. id. p. 55; in this word -group the verb is implicit. 112/113. Var der Stap, p. 74-75; although these examples are not mentioned as dependent clauses, they probably are; one can imagine at least that they are parts of bigger sentences.
114. Anonymus p. 49.
115. cf. Bromiey (1972) p. 57; there are differences bebetween this marker and its Yali cognate: whereas Yali mu/ma is contrastive with prior aspect marker, cf. section 4.3 .10 .1 , ma/mo in Daniis found following either priop aspect or the normal aspect marker, or both: $\xrightarrow[m]{m u}$ does not occur after normal aspect marker.
116. cf. Peters p. 153.
117. id. p. 156.
118. id. p. 158.
119. Anonymus p. 54.
120. id. p. 55.
121. ibid.
123. cf. sentences in Van der Stap, e.g. p. 47-50, 55, 67, 69 etc.
124. cf. Bromley (1961) p. 95-96.
125. This statement is made for Dani; in Yali en is a stressbearing suffix. The interjection nen in Yali, meaning "and", might be historically related to the suffix, but does not have any impact on the analysis of the categorical en. Cf. also Bromley (1961), p. 95, sentence 5, where en/nen occurs four times, and sometimes without stress.
126. cf. Wurm (1964) p. 83; phonological features and verbal phenomena are amply represented. Cf. also bo Boelaars (1950), p. llI-123; several entries, mentioned in the table in this book, opposite p. 200, are not mutually exclusive; the more we can notice the relatively low number of comparable features, as far as nominal morphology is concerned.
127. Van der Stap, p. 144.
128. cf. Van der Stap, p. 154-156; the absence of the categories in Yali is an interesting fact, especially so, because the elements shown in them, dek and anek, and dak might be related to parts of words, which are found in Yali also, cf. note 99.
129. cf. Van der Stap, p. 156-158; the following Yali words are examples of forms, where reduplication might be assumed: nin-tul nan-tul, "always", aharli-barli, "pithy", ambulpul, "flame", aliplip, "itch"; also nabelal habelal,"immortal"(literally:"my skin, your skin" derived from a mythical story of the contest between a bird and a snake, cf. Peters, p. 166, 167.
130. Van der Stap, p. $5-6$ uses as items of reference to verbs members of the "infinitive" category; the proper status of this "category" is open to doubt, I feel, because of the fact that Yali forms which are formally and semantically comparable with members of this category are only found in "station language" -i.e. a language which is corroborated by contacts with non native speakers -; moreover, also in Dani such forms are homophonous with members of the 2 ps
"adhortative aspect" category, cf. Van der Stap, p. 45 ff ; the suggestion made by Van der Stap, that the 2 ps adhortative forms could be considered "as a special use of theinfinitive forms" should better not be adopted, because of the mentioned simplification of the language in contacts with outsiders; Heider p. 17 stressed this point, when stating that in the symplified Dani "the cultural nuances possible to express by the highly inflected verb forms .... are obliterated by the use of one form for all situations", and adding:" Significantly this is the present singular imperative"; the "infinitive" consequentlycame into being thanks to the leniency of the Dani's in handling the forelgners.
131.
at is generally found as the second verb in compound or composite verbs cf. sectioms 6.3. and 7.2.
131a.The verb VmbV is a special case, since its first $\underline{V}$ harmonizes with its second.
132. An exception must be made here for the verbs, labelled as "existential", which have"secondary" or "pseudotertiary" morphemes cf. Van der Stap p. 129 ff , and this study p. 49.
133. cf. Bromley (1972) p. 562 ff.
134. Historically speaking, we can assume that the vowel of an original morpheme $\underline{\text { Vh }}$ was lost in a process, that included the dissimilation $h>$ 学 because of the preceding $h$ in the verb root.
135. In Western Dani the cluster of allomorph root final and tense marker results in ngg , as in Yali; in the Dani dialects of the Grand Valley, which lack prenasalized consonants, we find the cluster kh instead.
136. Although only occurring in a special syntactical context, forms corresponding with root nV are found as members of at least the first and second past and future categories and the irrealis category in Abenaho Yali; its Angguruk cognate no however is not
conjugated("wird nicht conjugiert", Zollner, VerbParadigma, p. 26.).
137. Van der Stap,p. 16.
138. Van der Stap, p. 106-107, 121-122, and 130 sub A.
139. Van der Stap, p. 106; the quoted statement is valid for forms, marked for 1 and 2 p actors; preceding 3 p markers allomorph tense markers are found, id. 107.

139a. The"tense morpheme" Vhk consequentiy can be named more justly the near past tense allomorph, following verb roots with a vowel root final. When formulated in such a way, there is great similarity, morphologically speaking, between forms of verbs which have a vowel as root final phoneme in Dani and Yali, when found as members of the first or near past tense category.
140. Van der Stap, p. 130.
141. Van der Stap, p 129.
142. ibid.
143. Van der Stap, p. 122.
144. This term is misleading; the verbs, grouped under this label, can be interpretated as including the verbs of motion was and las "to come" and "to come", and the verb as, to"become", and verbs which show the mentioned roots as second element of their roots, e.g. menas "to stand" (cf. Yali compound min-as), Welas "to stay" (cf. Yali welat) etc.; members of the Yali class VIII verbs include the cognates of these Dani verbs; the remark made by Van der Stap on p . 130 , sub A.2. is not valid for Yali, where an expected form welaha is found besides wereg.
145. The descriptionsby Bromley and Van der Stap differ in this point; dialectical differences might underile this mention of $\underline{h} / \underline{k}$ or $k$ only.
146. cf. Van der Stap, p. 121-122.

147 cf. Bromley (1972), p. 49-50, and paradigma on p. 562-565.
148. cf. Van der Stap, p. 102. The"handful of verbs" is the group labelled "existential verbs"; these verbs sometimes show "pseudo-secondary categories", 1d, p. 128.
149. Bromley (1972), p. 565.
150. id. p. 49 and 564.
151. id. p. 50; cf. note 135 on the verb na; this verb is not mentioned by Van der Stap.
152. Van der Stap, p. 16.
153. Bromley (1972), p. 50-51.
154. We might assume the loss of morpheme final $k$ preceding 3 p actor marker si or sa in former times.
155. Van der Stap, p. 16-19.
156. This does not excude a common origin of the two morphemes; /d/is an alternant of $\underline{s}$ in some cases in Yali; the relationship of $\underline{s}$ and $\underline{h}$ is a common feature in New Guinea languages.
157. Van der Stap, p. 108; note that final h in these morphemes should be interpreted as the actor allomorph initial, cf. note 234.
158. Cf. Bromley (1972) p. 567.
159. These forms are marked for 1 ps actor.
160. This fits in very well with the remark made in note 156.
161. cf. Van der Stap, p. 123.
162. As for the tense allomorph preceding 3 p actor markers in this category, I refer to note 157 ; in this case also 3 p actor allomorphs, showing initial $h$ are found. Moreover, forms of the "pseudo-tertiary category" of the remote past tense cf. Van der Stap p. 130 , are not identical with remote past tense forms mentioned by Bromley (1972) p. 567; there we find e.g. lakaki, wakaki etc.; indeed Bromley mentions ak following the "factive marker" as a remote past tense allomorph. Although, consequently, the rules governing the nature of $V$
must be defined more exactly for the dialect, described by Bromley, this does not invalidate my analysis of remote past tense morpheme as hVk, (kVk) or $s V k$.
163. cf. His analysis of this "factive marker" in the near past tense forms.
164. cf. note 162; besides ak, also eik, uk, oukw and ukw are mentioned as such allomorphs in the Lower Grand Valley dialect; the labio-velar stops are nearly absent in the Mugogo dialect, cf. Van der Stap p. 2-3.
165. Bromley mentions $\underline{3}$ as an allomorph "factive mode marker" in this catecory also.
166. Van der Stap p. 20.
167. ibid. Historically speaking, a progressive aspect compound might underlie the present day remote past simple verb; in the Angguruk dialect of Yali besides e.g. baltikik competing forms baltik-(ih)ik are found. cf. Zठllner, Verb-Paradigma, p. 7; contraction of morphemes, together with a gradual shift of accent is indicated by the occurrence of these forms; in Abenaho Yali and Dani only the simple verb forms are found.
169. This may mean two things: a. Mugogo-Dani has lost this category, or $b$. Yali has borrowed it in from another language. The second conclusion seems the more probable, because of two reasons: l. Not only Mugogo, and, with it, the Grand Valley Dani sub= family, but also Western Dani lacks a comparable category, 2. the reversion of the order tense-morpheme-actor morpheme is a feature highly uncommon within the whole Dani family.
170. The suffix tihip can be understood as the result of the expected cluster ll>t. One might assume consequently, that the existence of allomorph tul (instead of ul) reminds of a former lul as l pp first future suffix, which is in line with the pattern
of other members of this category. Moreover, this is suggested also by the cluster lt in the irrealis category, where the replacement of a former 1 by $t$ can be accepted without doubt.
171. The loss of 1 in this allomorph strengthens the hypothesis mentioned in the preceding note considerably.
172. The assumption of such a tense morpheme is reasonable but the following remarks must be kept in mind: 1. the 1 p first future suffixes do not show morpheme final ${ }^{h} ; 2$. it presupposes a former 1 pp suffix, showing initial 1 , which is an acceptable idea, cf. note 170; 3. it presupposes the disappearence of tense morpheme final $\underline{h}$ preceding 3 p actor marker ( ${ }^{\text {mihsi }}>$-misi, ${ }^{\text {Iuhsa }}>$ lusa) ; we noticed such a process already, cf. note l54. The existence of the morpheme is suggested also by the occurrence of a future tense category in Western Dani, which is characterized by the comparable morpheme mvg , $c f$. Appendix II, section IV. Finally, $\underline{V}$ in the morpheme in Yali is $i$, if a sg. actor marker follows and $\underline{u}$, if a pl. actor marker follows ; this opposition correlates with other oppositions of that kind cf. note 175
173. Consequently, the forms found in the Landikma and Angguruk dialects, can be said to represent the historical forms of Yali in this case more fully than their Abenaho counterparts do.
174. Van der Stap p. 7-10.
175. This opposition was found in the preceding paragraph also cf. note 172.
176. Van der Stap p. 103-104.
177. Van der Stap p. 121.
178. Bromley (1972) p. 86-87.
179. Bromley (1972) p. 593.
180. cf. notes 172 and 175.
181. Van der Stap, p. 8-9.
182. cf. note 134.
183. cf. however, the remarks made in the description of the prohibitive category in Dani, section 4.3.11.
184. Bromley (1972) p. 87-88.
185. Angguruk Yali has $\underline{v}$ in all the second future tense morphemes, where Abenaho has $u$. For Dani cf. the paradigm in Bromley (1972) p. 594.
186. I prefer this manner of saying to the one mentioned, i.e. that the Dani category is not marked for subject.
187. cf. section 4.3.11. on prohibitive categories.
188. We meet the same kind of dissimilation here as was found earlier, cf. note 170.
189. Van der Stap p. 39-42.
190. Van der Stap states the absence of irrealis with object-morpheme verbs on $p$. ll3, with medial voice verbs on p. 125. Except for the fact that Bromley mentions irrealis forms of root final vowel verbs, we find their occurrence in Mugogo confirmed in Veldkamp, e.g. pile, "I nearly fell down" etc.
191. All these forms are marked for 1 ps actor; the forms are mentioned in Bromley (1972)pp. 587-588.
192. Bromley (1972) pp. 78-79.
193. The forms, understandably, are often used in hypothetical clauses.
194. Van der Stap p. 42.
195. cf. p. 59.
196. cf. section 5.9 .
197. cf. notes 172,175 and 180.
198. Z8llner, Verb-Paradigma, p. 1.
199. cf. pp. 59 and 65.
200. In the first and second future tense and in the immediate hortative categories, cf, pp. 59, 62 and 66.
201. In alu and anu the root consonants $\underline{1}$ and $\underline{n}$ are recognizable. Not, however, in manu (as in the immediate hortatives ma and maniek); it is a remarkable fact, that the root initial $\underline{m}$ shown in these forms is found in other Irian languages,
-not narrowly related with the Dani family-, as the root consonant of a verb, meaning "to come", e.g. Cowan (1966) p. 21, Steltenpool p. 166 and Doble p. 33.
202. Van der Stap p. 43-44; the reason for assuming the stem don't seem to be very convincing in this case, especially if we take into account the fact that the so-called "plus-a" is just the verb root final. The reasons mentioned by Van der Stap loc.cit. sub $3 b$ and $c$, could serveas well as arguments against the assumed stem. Moreover, what about those hortative categories which, although not showing the "stem", are nevertheless patterned in the same way as other hortatives? Finally, to say that "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-morphemen, ibid., is to make a tautologous statement: as $I$ have indicated earlier, cf. note 130 , the"infinitive" is the 2 ps hortative, which shows the "stem".
203. I already mentioned, as in the preceding note, that the "infinitive" is a hortative, semantically craned to help non-Dani speakers to understand the lexical meaning of Dani, not to grasp the structure of its verbs, cf. note 130.
204. Bromley (1972) p. 81 ff ; this "empty morph" is in the analysis of the hortatives an equally unsatisfying segment as Van der Stap's "plus-i" etc. Speaking of a potential mode marker in some cases seems more promising to me, cf. p. 71.
205. Cf. Van der Stap pp. 45 and 113 , where the analysis should be: root, followed by ik, allomorph k, and p. 46 and ll3: root, followed by in, allomorph n. The fact that a in the forms mentioned by Van der Stap p. 113 is the root final vowel does not permit us to consider it a "stem"-marker.
206. Cf. the mention of the Dani gerund on $p .96$.
207. The $\underline{w}$ in the Dani suffix uwak corresponds with w in
in the Yali suffix awag. In both cases w is the intermediate consonant between the gerund final and the element ak/ag; for yali this statement refers to an historical situationg presently w replaces the gerund final.
208. Van der Stap p. 49-50.
209. Van der Stap p. 114; Bromley (1972) p. 81 mentions
also the same suffix ovok; in it o is the
bound allomorph root final, replacing a, which is followed by the normal 1 pp hortative marker uok; the suffix free variant vok is a contraction of ovok.
210. We can assume consequently, that these suffixes have a common origin; on the absent of word final consonant in Dani where Yali cognates have one, cf. p. 19.
211. cf. section 4.3.8. on the intentional aspect.
212. Cf. deferred hortatives anu, manu, and alu ( alnu?). $_{\text {alu }}$.
213. Van der Stap p. 53-54. It is a remarkable thing that a most infrequently found deferred hortative in Yali shows morpheme nog and indicates 2 ps actor; I only found it used in interrogative clauses, e.g. ognitnog"Will you give to us?".
214. Van der Stap pp 48-49.
215. Van der Stap p. 54. The suifixes oakai and upakeik can be considered as dialectical variants. They refer probably, as is indicated even in the examples given by Van der Stap, to 2 pp actor. Cf. form and meaning of the 2 pp adhortative suffix in Western Dani, Appendix II, section V.B.
216. Bromley (1972), p. 81.
217. cf. the attempt to give an historical analysis of some hortative morphemes in section 4.3.9, pp. 79.480. 218. Bromley (1972) p. 81.
219. All hortative suffixes in Dani have or can have a vowel as first phoneme, -which, rather arbitrarily, is considered as stem formative in some cases; but not in others- although it sometimes is not found
following verb final $\underline{s}$, cf. Van der Stap p. 48, 51. 220. cf. section 5.3 on this participle category.
221. cf. p. 60 and 67.
222. Van der Stap, p. 58.

222a.Van der Stap p. 58; cf. also pp. 116 and 125 for "secondary" and "tertiary" intentional aspect forms.
223. Van der Stap p. 72. The root vowel, present in this participle is V.
224. Bromley (1972) pp. 83-84. This root means generally "to say" and, - in connection with the 1 p hortatives bearing the meaning of "planning to"should be interpreted as referring "to the inner speech of the planner", loc.cit.
225. Van der Stap, p. 59.
226. Van der Stap p. 72.
227. This is an interesting example of one step in the process of formation of a category out of previously seperated elements; a second step would be the shift of the word accent.
228. Van der Stap p. 58
229. cf. above p. 70 and p. 76.
230. Van der Stap, pp. 12-15 on Actor categories.
231. Bromley (1972) p. 49.
232. Bromley (1961) p. 85.
233. Dani(Mugogo) shows the actor markers, mentioned by Van der Stap on pp 15, 106 and 121; Dani(Grand Valley) gives the same, as mentioned by Bromley (1972) p. 49.
234. Van der Stap, p. 106.
235. id. p. 82.
236. In many cases this opposition is between $\underline{i}$ and $\underline{u}$, as usual, cf. pp. 60, 67 and 72. In the first past tense the opposition is between $i$ and $E$; we might assume that in this case a vowel shift has taken place in historical times, $\underline{u}^{*}>^{*}>\underline{e}$, possibly in analogy with the vowel of the 2 pp actor marker; both $\underline{u}$ and $o$ are still found in the Dani dialects.

The actor morpheme final $k$ in the second past tense raises a little problem. Its existense could be an indication, that this category was a compound in former times. In Angguruk forms, competitive with the mentioned second past forms, are found, which still preserve the compound character: baltik- ihik and baltik-ik, vs. the normal baltikik. One could imagine a form, previous to the mentioned ones, ㅎaltik-ihi, whose first component final k was transposed to the form final position in a process, which also included a shift of the word accent and contraction of the former first component marker with the"root" of the second component. The same process is thinkable for forms, marking 1 pp actor, e.g. ${ }_{\text {Ealtuk-uhu }}>$ baltuk-vhvk, baltuk-uk (both forms found in the Angguruk dialect). However, the decision, whether final $k$ was originally part of the 1 p marker ( and consequently was lost in some categories), or is an innovation resulting from a special phonological environment, is at present hard to make, I feel.
237. The "survivals" of second past compound forms in the Angguruk dialect have $\underline{y}$-not $\underline{i}-$, preceding the actor marker, e.g. baltik-yhyn, baltik-yhyp. This could indicate thet formerly the second components of these compounds were homophonous with the first past tense-and-actor suffixes, e.g. *altik-ehen, baltik-ehep.
238. cf. e.g. the clitic initials in oboh-soho (Yali) and tadlok-hokon (Dani); see also note 156.
239. That is to say, if we allow a historical -which necessarily means hypothetical - explanation: 1) The 3 ps marker ek in the first past tense could have developed from a former si/hi: in Yali there might have been anataxis of the fricative, which dissimilated because of the preceding tense

probability of such a dissimilation cf. note l34; the anataxis of $k$ to word final position might have influenced the vowel shift $i>\underline{e}$ ); in Dani the final k might have been lost, which is not an uncommon phenomenon, , although an other process could be brought forward as well: assimilation of the actor marker to the tense marker, ${ }^{\boldsymbol{x}} \underline{\underline{h}-s i}$ or ${ }^{\underline{\mathrm{H}}} \underline{\underline{h i}}>\boldsymbol{h e}$; such a development is suggested by the occurrence of 3 ps allomorph he in that language. 2) the 3 pp actor marker a can easily be understood as the result of assimilation of a former marker ha (cognate with Yali sa) to the tense morpheme: $\left.{ }^{\boldsymbol{x}} \underline{\underline{h a}}\right\rangle$ ha; in fact this "former" marker occurs as 3 pp allomorph in several categories. 3) the occurrence of 3 ps actor allomorph a with the roots la, wa and a in the first past categories is a special case, probably one of assimilation of the actor marker to the root vowel.
240. This corresponds with data from Western Dani. The suffix myn in that language marks 1 ps and 1 pp actors, comparable with the two markers, min for 1 ps actor, and ul/tul for 1 pp actor, in Xali. In both languages the markers for other actors either contain the tense marker $h$ or can be supposed to have contained this marker in former times (in the latter case, i.e. with respect to 3 p suffixes in Yali, we can assume the assimilation of tense marker $h$ to the actor marker: ${ }^{{ }^{\text {minsi }}} \boldsymbol{>}$ misi and ${ }^{\text {muhsa }}>$ musa).
241. The liquids in these morphemes can be held to correspond with the aspect of future in the narrower sense, and $\underline{h}$ with the aspect of factuality or tense in a broader sense.
242. cf. note 240 and pp. $60,67,72$ and 76.
243. cf. note 441; Vn relates to final $\underline{n}$ in Yali and Western Dani forms.
244. On this marker and its originality cf. note 236;
the occurrence of $k$ here could be an argument in favor of its former existence.
245. The zero marking of 3 ps is a rather common feature in other fields of the language, cf. sections 3.3.2, $3.3 .3,6.8 .1$ and 6.8.2.
246. Bromley (1972) pp. 81 ff.
247. Cf. p. 78.
248. The element im, indicating future, is comparable with $m$ in the Western Dani future tense, Appendix II, section IV, with the same in the Yali future tense, with the final consonant $m$ of some gerunds, and with the root allomorph final $m$ with some class VII verbs in the second future tense in Yali.
249. This counterpart is (still) inip, cf. Appendix II, section $V$. A. The final $p$ of this assumed former suffix was lost in Grand Valley Dani, which is not an uncommon phenomenon, cf. p. 19 and the following note. In Yali the final p became $k$, which is not an unparallelled phenomenon either.
250. In this case, as in the preceding one, Western Dani offers the datum, which connects the two suffixes mentioned; there we find a comparable suffix ubagip, which still contains the 2 pp marker. We can consequently assume, that the two processes in the preceding note, -where they resulted in the different suffixes found in Yali and Grand Valley Dani - played a role also in the differentiation of the mentioned suffixes: in Mugogo an original ${ }^{*}$ owakip resulted in oakai (loss of final $\underline{p}$ ), whilst in the lower Grand Valley dialect uwakip resulted in upakeik.
251. An interesting parallel between first future and immediate hortative on the one hand, and second future and deferred hortative on the other: whereas the first future tense has i as its vowel in four out of six contrastive suffixes, the second future has only $u$ in all the suffixes. This parallels withthe
contrast between front and back vowels in the hortative categories: where such a contrast exists, the immediate hortative has a front vowel, the den ferred hortative a back one, e.g. iek vs. iuk, inak vs. owak, ini vs. ino. We could envisage the possibility, that the known opposition of ivs. $u$ in actor markers, corresponding which the opposition singular vs. plural, was crossed by another opposition in tense markers, viz. front vs. back vowel, corresponding with the opposition near vs. remote future.

252/253. I recall the fact that Yali orthography accounts for the allophones of /d/ by using $\underline{r}$ for /d/ in intervocalic positions, an $t$ for /d/ in clusters.
254. Van der Stap, p. 24.
255. ibid.
256. Van der Stap, p. I6.
257. Van der Stap, p. 24.
258. The process, whereby morpheme tik became sik is parallelled by the occurrence of allomorph seg, following $F$ final $p$ in Yali.
259. Van der Stap, p. 25-29.
260. Van der Stap p. 28.
261. cf. normal aspect, p.89.
262. Indeed the habitual aspect forms have a final $\underline{k}$; following thjs $k$, the prior action allomorph sik occurred, and preceding the $s$ of this allomorph $F$ final k assimilated and disappeared: e.g. ※alhytektik $>$ balhyteksik $>$ balhytesik.
263. In this process the original habitual aspect marker initial t reappears. The following series of forms Illustrate the process involved:
2 pp near past tense: balhep habitual aspect marker tek added: ${ }^{\text {balheptek }}$ (

ㅎalhepsek(cf. note 258)
$>$ balhesep

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                            - 233 -
    priom actjor marker tik addec: *bajnes\inftik>
                balretefsik
    the prestert cateegory:
                                balretesis
264. Van oier Ster, p. 29.
265. Van cer stop's ciscussion of the crigin cf the
    fcrms, w. 28 in tis study, reactes a rigt.t.
    conclusion, tut the formal ergumertas are retturr
    wear; tr!e arguneriss takeri from sjutajis, lococit.
    sub la anc b, are more irterestirg. Or the ferma]
    side, tre decision sholi]c rave been wracie by tre
    inclusion of prccesses like assimiletior and anataxis
    in the morfhojugicel descripticn.
    266. Van der Stap p. 3\varepsilon. These "frogressive aspect fcrms";
        by the wisj, are not simple vert forms, but compourds.
    267. Van Ger Stap, F. 38.
    268. Althoukh Var. Ger Ster's cocourct does not mienticn
    the syrtactic valence of the forms under discussicr, 
    it can be inferred from the exar:fles cited or: p, J]2
    of this study; e.g. sepelhy-lahykysjk "(aiter) I
    finisted fressing* *
    269.cf.pp. \hat{c}-23 and 4&
    270. Van der Stapr p. 1i0.
    271. Van Ger Stap, f. 110.
    272. Ven aer Step f., 111.
    273. The areljses of rsecondary prefect past progreseive
        aspect" forms is an interesting example of the way
        in which ver aer Stap segmer:tates merphemes, vithout.
        regerd to word a<cent, e.g. sepelysasykrylabykysik
        is segmentated ir the followirge way (p. 1l2): sepel
        root, ye 3 pp object morphenf, asyl: secordarj
        progressive aspect morpheme (?), hyle
        aspect m.crphene, including "vowel-secaretor S" (?),
        yk tense morph\in\mathbb{m}, \Sigma] ps actor morfheme, sik per-
        fective morpheme; however, an elatorate form like
        tris, is botr: a compound and a compositee vert, wricr,
        is indjcateed ty trie word eccents: sefel-ysasylyy-
        lahykysjk; the fcllowirg analysis is mort appropriete
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and acoourts for kotr here accert and features found in comperatle forme: sepel root, ysa 3 ppotiect markije rcot (cf. section 6.8.3.), syk tence ajlor morph (cf. sfction 4.3.2.1.), hy durative stem marker (cf. section 5.9.1.) lah rool allomorfh of verb la (cf. section 4. 2.2 . and Yeli class VIJ verts, section 4.2.), yk seconc pest tense ajlomorph (cf. section 4.3.2.1.), y 1 ps actor morfheme (cf section 4.3.9.), sik pricr action acticn marker.
274. cf. rote 268.

2ッ5. Van aer step p. 124.
276. Bromley (1972) p. 8.
277. Whereas for the description of the Dani forms wrier discussion the formula: F, $\pm$ hatitual aspect, $\pm$ pricr actior, hoids, the haritual aspect arci frior acticn morphemes in Yali are of the same order, i.e. are muttially exclusive.
278. With respect tc Dari $I$ ciof rot find mertion of irrealis or future terse forns as F. However, compere the remerk reof in the descraption of prohibitive forms, F. 92.
279. cf. also Appendix III, where a specimen of Dani text is given.
280. Eromley (1972) p. 8; the origin of the term "chairing" and examples of a similar tyfe of marking in other Langueges are given by Bromley, loc.cit.; cf. also Cape 1 F. 115.

2ع1. The musnirg of the implied verb of mu/ma is most easily jescrited as "to be". An exemple of a form, which contains beth the pricr action marker ara mo'ma, is founc ir Brcmlej (2G61) p. 96, line 12: gi-ckeikresi'mo-ren"they invaded, ard then they (same sukject, indicated by si', in which glottal shof refleces k)were cn thet place (impljed vert of $\mathbb{m o}^{\prime}$ ) and then ......! (change of subject indicetec by mol.
282. cf. Appendix III,Yali text III, first senterce, yaltulen

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283. Eromley (1972) p. 58. I con't think we need this term in morphology; the functicn of er following hortative or inperative forms is no other ther. ir: cases where it follows members of other categories. 284. cf. examplesmentioned in note 281 ard ir Appercix III, secticn IV.
284. Van der Stap p. 21.
285. cf. section 4.3.1.1.
286. Van der Step p. 110; I recall cnce mere, that "secondary" categcries have as their members forms of verbe having roct final vowel.
287. Cf.notes 262 and 263 , also Var: der Stap pf. 25-29 and lul.
288. Van der Etap p. 21.
289. cf. notes 262 ard 262.
290. Eromley (1972) p. 9.
291. In Western Eari ar elemer.t, comparable with the ncrmal aspect marker founc in Grard Valley Dani, shows up, which functions more or less as a tense marker, cf. Pppendiz: II, section III B.
292. This is illustrated ty tre examples given, Van aer Stap fF. 21 ard 29.
293. In suck cases the future tense form is cften preceedec by cther horcs, meaning some kind of negetion or prohibition; the future tense form incicates that the action, mearit by it and ccnsicered incesirable, surely will hapfen, if the proricitive advise is not follcwed up.
294. Instead, Eromlej takes the whoie eienert hy as the futlie terse morpheme, cf. p. 63.
295. Van der Stap p. 61.
296. Bromley (1972) p. 64.
297. cf. F. 6こ.
298. This could te an indication of the relatively righ. impcrtance of the first fiture categcry, whict, in Grand Valley Deni, partly occupies the semartical
field, preserved to the second future category in Yali.
299. Cf. p. 61.
300. Van der Stap p. 63.
301. In the 2 ps as well as in the 2 pp prohibitive the analysis must be no other than in other normal aspect forms, cf. p. 89.
302. Van der Stap p. 63.
303. Bromley (1972) p. 65.
304. Van der Stap p. 64.
305. Cf. section 5.9 .
306. Cf. section 5.9.1.
307. As Van der Stap p. 64, calls it.
308. Cf. p. 95.
309. The cognation of Dani words having initial $h$ with Yali words having initial if firmly established; e.g. fano-hano "good", fobik-hopuk/houvk "later", filik-hili "rotten", felat-helat "quickly", fohfoghokhok "whispering" etc.
A similar phenomenon is observed with different dialects within Yali language: e.g. fabultuk (Abenaho) habultuk (Angguruk) "to dig".
310. Bromley (1972) pp. 90-91.
311. A similar argumentation is given by Van der Stap,
p. 65; the members of the resultative participle category, cf. section 5.6, are good examples of suchs verb forms, which don't function as verbs syntactically.
312. Cf. first future, p. 59, second future, p. 62, hortative, pp. 66-67, and intentional aspect, p. 71.
313. Cf. p. 66; the gerunds meant are e.g. wam and am, cf. hortatives wamuk and amuk.
314. Cf. p. 66.
315. Cf. p. 72.
316. Cf. p. 93.
317. These names are given by Van der Stap pp, 66-67 and Bromley (1972) p. 88 respectively.
318. Van der Stap p. 66.
319. Van der Stap p. 116. We have to note that the forms,
given as illustrations, are compounds: e.g. leket-hau. 322. Cf. Bromley (1972) p. 88.
320. Van der Stap p. 67.
321. Bromley (1972) p. 88.
322. The loss of final $k$ in the Dani hortatives is mentioned on p .79 ; whereas gerund forms, corresponding with roots having final a, in Yali (still) remind us of a former $u$ by showing o in the gerund forms (e.g. nao, hao, lao), comparable Dani forms sost this formal element also (e.g. na, ha, la).
323. Van der stap pp. 67-68 and ll6-117; the "aspect-morpheme" ausak in forms, mentioned in these latter pages is to be analyzed as containing the verb root final a, followed by the normal "voluntative aspect morpheme" usak; as in other cases there is no need to speak here of a "secondary category".
324. Bromley (1972) p. 89.
325. Bromley ibid.
326. Van der Stap p. 67.
327. Z8llner, Verb-Paradigma p.88, Syntaxe p. 15.
328. This sheds an interesting light on the development of categories; elements, which formerly were free, may have become linked functionally, and become the formal feature marking a category. In connection with the clitic teg/reg, shown in the Angguruk category, one might wonder, whether a similar development has not taken place with respect to the prior aspect marker teg/seg, shown in verb forms in both Dani and Yali (cf. sections 4.3.10.1 and 4.3.10.2); there might be a link between this marker and the resultative participle seg in Yali (cf. p. 103).
329. Cf. pp. 59 and 63.
330. Van der Stap p. 72.
331. Van der Stap p. 73.
332. Van der Stap p. llg.
333. I have mentioned several times already, e.g.pp. 22-23, 48 and 85 , that the members of "secondary categories" mentioned by Van der Stap, generally are compounds;
the "voice- morpheme" is the root consonant of the second component in such compounds, and the a of alok the root final vowel.
334. Bromley (1972) p. 96.
335. Cf. Irrealis, sections 4.3.6 and 4.3.6.1.
336. Van der Stap p. 73.
337. Cf. the example given by Van der Stap p. 73; acts of motiongenerally don't have an explicit object in Yali or Dani.
338. Bromley (1972) p. 96.
339. It seems that the semantical information, that an action is completed, is far more important than the implication, that the consequences of such a completed action are still visible during the act of motion. Probably the idea of coterminous acts is the result of attempt to translate sentences, containing the forms described; such contemporality is indeed implicitly suggested by a special arrangement of words, but not part of the meaning of the perfect participle category. An example from Yali: e umbulug wahi "I came without the piece of wood" (more properly translated: "I put the piece of wood down and came'); but e walug wahi "I took the piece of wood with me" (more properly translated: "I took up the piece of wood and came"). The suggested contemporality of the two acts "to take" and "to come"in the latter example should be attributed to the meaning of the verb "to take", not to the perfect participle category.
340. These are cognate with the Yali forms ulug, halug and walug; the Dani form wolok corresponds with a root won to take, cf. Bromley (1972) p.96.
341. Bromley (1972) p. 98.
342. Cf. section 5.9 .1 , and Van der Stap p. 70.
343. Originally the morpheme might have been a reduplicated one; if this is true, Dani $\underline{y}$ represents a contraction of $e$ and $e$.
344. The form wilil semanti ally corresponds to the verb wa "to take", as well as welatto be"; in the latter case

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it is syntactically marked by the fact, that it is not followed by a verb of motion, but either a form of a verb which implies the absence of motion or a form of welat itself.

349. Van der Stap p. 70, Bromley (1972) p. 93.
350. Van der Stap p. 70.
351. This is understandable, because generally the "secondary categories" in the study of Van der Stap have as their members compound forms; in Yali nor Dani compounds are usually found as members of the durative participle category. On some "isolated phenomena" $\mathrm{c}^{\prime \prime}$. Van der Stap p. 118.
352. Bromley (1972) p. 93.
353. Van der Stap p. 70.
354. They also suggest that both 1 and $k$ were found in a more original morpheme, e.g. kilik "full" (cp. root $\underline{k V}$ to enter) ilik "saying" (cp. root V "to say"). I already mentioned that the allomorph lyk shows up in Dani following vowel final roots. Also, I mentioned the Yali form wilil, which semantically corresponds with the Dani lokolyk; the reduplication in wilil could represent a transitional stage in a process, whereby given the original $\underline{1}$ and $k$, Dani preserved $k$, and Yali $\underline{l}$.
355. Cf. section 6.2.
356. Van der stap p.71.
357. Van der Stap p. 133.
358. Van der Stap p. 134.
359. Bromley (1972) p. 99.
360. Bromley (1972) p. 97.
361. Bromley (1972) p. 99.
362. Bromley (1972) p. 101.
363. Cf. Compound verbs p. 118.
364. Van der Stap pp. 73-74.
365. Van der Stap p. 119.
366. Cf. p. 49.
367. Van der Stap p. 134 and 135.
368. Van der stap p. 137.
369. These forms in Anonymus p. 51, 49 and 40.
370. Bromley (1972) p. 97; also mentioned is allomorph hoko, found if following verb roots ending in yk and vk, loc.cit.
371. Bromley (1972) p. 99.
372. This was the result also of a recheck on forms, given by Van der Stap; we could think of these forms as members of reflexive sets, cf. section 6.4.1.
373. In present-day Yali the adverbial participle corresponding with root $S V$ is seko; apparently the clitic soho in Yali is as much a survival from a former stage as Dani hoko is.
374. Bromley (1972) p. 97.
375. A stem is the first component in a compound or composite verb form, which has stress on the final syllable, is unlike a verb root (it contains a morpheme with a special meaning) and does not appear in isolation.
376. I could not discover a rule, governing the distribution of the allomorphs here.
377. Cf. section 7.3 .
378. Cf. p. 65.
379. Van der Stap p.76.
380. Van der Stap p. 120.
381. Van der Stap p. 68.
382. As said on p .17 accent is a border marker.
383. Van der Stap p. 68.
384. Sometimes even noho is found in Yali also.
385. Cf. p. 95.
386. Van der Stap p. 117.
387. Bromley (1972) p. 92.
389./390. Bromley (1972) pp. 91-92.
388. Cf. the example given Van der Stap p. 69.
389. I an not sure, whether there is any relationship between the clitic noko (cf. Yali no) and the interrogative element no, found in Yali (e.g. nohele "what kind of a rope?", "which rope?", cf. hele "rope"; nongge "what?").
390. Cf. Appendix III, texts l-III.
391. Bromley (1972) pp. 70-74.
392. Cf. p. 51 and 75.
393. Cf. p. 90.
394. Van der Stap p. 76.
395. Van der Stap p. 120 mentions composite verb forms, showing a form of the verb lokon as second component and a form of another verb as the first; the final a of this first component should be understood as the root final vowel, as in the other "secondary categories". The durative marker in such forms which indeed are stems, consequently,is zero; the stems themselves are homophonous with the motive stems, cf. pp. lll-ll2.
396. Cf. section 7.2.
397. Bromley (1972) pp. 47 (e.g. wathy) and 106.
398. As known, the phonemes /d/, $\underline{s}$ and $\underline{h}$ are related, historically speaking. We might assume an original durative stem marker*huk for Dani, which after the loss of final k - a common phenomenon -, got marked with a 3 p actor marker and resulted in hy/hv.
399. Van der Stap p. 69.
400. Van der Stap p. l17.
401. Bromley (1972) p. 67.
402. Van der Stap p. 69.
403. Bromley (1972) p. 67.
404. Van der Stap p. 70.
405. If followed by on, the stem syntactically functions as an adjective, if not followed by on, as a verb.
406. Like Dani, cf. Van der Stap p. 70, Yali has a blockading
form for 3 p progressive aspect present tense: wereg, cognate with wetek; I don't think that it is as frequently used in Yali, as Van der Stap suggests for Dani.
407. Except for the indication given by comparative syntaxis, formally the same argument can be used here as in note 402; in this case the forms having o represent the common historical durative more fully, whereas the "portmanteau" $\underline{y}$, marking also plural,
might be explained by reference to plural marker i, found with some substantives cf. p. 25.
408. Bromley (1972) p. 7.
409. Of these only the second one, understandably. shows the markers which characterize categories, mentioned in the preceding parts of this volume.
414.Cf. p. 104.
410. They might be indeed resultative participles, historically speaking; the same can be said with respect to the verbs referred to on the preceding note: e.g. the present root eset might have developed from participle eseg allomorph root esag; an original root es thus could underly the present forms.
416.Van der Stap pp. 81, 84 and 95 ; on Dani cognates of the exceptional first component roots such as og and yig cf. Van der Stap p. 139, e.g. wokosin and jokosin (word medial accent is not symbolised by Van der Stap).
411. It consequently show the same morphological peculiarities as at which in this study is described as member of verb class VIII.
418.Cf. section 7.2.

419, 420, 421. Van der Stap p. 85.
422. Van der Stap p. 84.
423. Van der Stap p. 83. By stating that the categoric meaning of medial voice is "getting into the state ...", id. p.85, Van der stap implicitely introduces the possibility of ascription of a lexical meaning to root la, but because of his way of analysis he concluded for "no lexical meaning", id. p. 76 note 32.
424. Bromley (1972) pp. 38 and 204.

425 Bromley (1972) pp. 39 and 226/239.
426. As remarked earlier, lat is also found as an Angguruk cognate of Abenaho at; historically lat might be related to welat, which is found in Yali and Dani.
427. The terminological ambiguities created by Van der stap in his use of the term "category" are demonstrated once again in his description of the "tertiary categories", loc. cit. pp. 120 ff . These, to be sure, are no separate
categories at all, but have as their members those members of the normal categories which show the formal characteristics of the special verb class to which they belong, cf. pp. 22-23. This fact is not stated very clearly by Van der Stap, who on the one hand offers as examples of "tertiary categories" forms which only have medial voice second component root las. while on the other hand calling "pseudo-tertiary" the same categories, if showing other members of the same verb class as las; this is making Dani morphology more intricate than it really is.
428. Van der Stap p. 86; he also mentions a "reciprocal voice" category, formally characterized by reduplication of verb root, followed by a form of the verb $\underline{V}$; such combinations are sometimes found in Yali also, e.g. watwat-ehesa "they trounced each other" (cf. Dani wat-wateka). A comparable phenomenon is the participle showing reduplication of the modified verb root found in Angguruk, e,g, sy-salna (root sal), py-pylab-ane (root pylab), cf. Zallner, Verb-Paradigma, p. 3. 429. Bromley (1972) p. 200.
430. Cf. paradigm in Bromley (1972) p. 564-567 on the morphonological processes involved.

43l. Van der Stap p. 136 gives another example, although not properly analyzed, of forms labelled reflexive or energetic voice, e.g. hothakhyky; in this form the element hak is not the"reflexive voice morpheme", but "energetic voice" second component root ha, cf. p. 124, followed by $k$ (one of the morphonological processes meant in the preceding note is the adding of $k$ following vowel final roots and preceding reflexive voice consonant $\underline{h}$ ); reflexive voice, consequently, corresponds with the root ha in this case also; in the above form this ha corresponds with the element hyky (which shows besides the root ha also near past tense and $I$ ps actor marker).
432.Cf. p. 124. Moreover, this is an interesting example of the way in which simple categories probably are constituted : elements which evidently were more loosely bound in former times, become intimately connected in a
process which concludes with the shift of accent to the final syllable of the form. The element corresponding with the meaning of reflexiveness was apparently the same in Dani and Yali: sa/ha; I wonder whether there would be a historical relationship between this element and the 3 ps actor marker, cf. p. 75.

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434.Cf. second series of object marking roots p. l39.
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435 Bromley (1972) p. 39.
436. Cf. Veldkamp passim, e.g. jouk-iki"I started"
kume-ekatek "they swim"
kamo-iki "I won't do it"
noko-iki "I slept"
437. Van der Stap, pp. 79 ff.
438.Cf. p. 122.
439. Cf second series of object marking roots p. 139.

440/441. Van der Stap p. 81.
442.Van der Stap p. 135.
443. Preceding the causative voice morpheme, the verbs having allomorph roots in compound verbs, cf. p. ll7, show the same allomorph also in this case.
444. Related to such forms are the causative stems, generally followed by a form of the verb $S V$, which show an adjective, followed by element ap, e.g. fanoap-sV "to heal" (cf. fano "good"), suap-sV "to make great" (cf. su "big") dahap-sV "to make bad" (cf. dag "bad") etc.
445.Van der Stap p. 82.
446. Van der Stap p. 93.
447.Van der Stap p. 82
448. Bromley (1972) p. 36; cf. on the "locative auxiliary" ha id. p. 250.
449. Bromley (1972) p. 254.
450. Bromley (1972) p. 250.
451.Cf. second series of object marking roots, p. 139, and reflexive voice, p. 122.
452.Except for the resultative participle category.
453.Cf. p. 8, where t is interpreted as a geminal cluster. In Angguruk Yali only the cluster is found; moreover, in that language the stem final $\underline{p}$ is dropped preceding second root initial f, e. $\boldsymbol{q}$. pale-fat-ta (root pal), cf. z8llner Verb-Paradigma $p .18$.
454. Cf. reflexive voice p. I22.
455.Moreover, in former times the other series probably have occurred independently as well, cf. p. 144.
456. Not with the morphemes marking the resultative and adverbial participle categories. Moreover, we find an allomorph gerund marker following singular object markers: um, e.g. yih-num "to tell me", oh-hum "to give you". As member of other categories this first series of singular object marking rootsfollows the pattern of class IV verb exceptfor the fact that they, like the class VIII verb at show $\underline{m}$ instead of $\underline{b}$ preceding some tense and mode markers. Apparently the category of the "deputative adhortative aspect" mentioned by Van der Stap p. 56, is the Dani counterpart of the Yali gerund just mentioned; my own check on the forms mentioned loc.cit. proved that the word accent is on the final syllable - which is interesting from a comparative point of view -, but that the benefactive object is 3 ps ; this last fact is not mentioned by Van der Stap. That the action is to be performed "on behalf of the speaker" means little more than that the speaker uttered the word. The "familiar adhortative aspect" category, Van der Stap p. 90-91, is a comparable category, although it has word accent on the root final syllable (this feature is, as usually, not mentioned by Van der Stap).
457. Cf. non-specific compounds, p.l23
458. I.e. in all those forms, where root vowel a is replaced by eor $\underline{i}$.
458a. Not with the morphemes, marking the resultative and adverbial participle categories. Moreover, forms competitive with members of the perfect participle category are found; these competitive forms apparently are borrowed in from Dani and have their own original root, cf. p. 43.
459. The root ha refers to 3 ps object.
460. For in cf.p. 27; is might have developed from ins, in which s is the first consonant of a simple verb root, comparable with ha.
461. As indicated in the preceding note, a probably was the root consonant of an original sa/ha.

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462. The sequence ea might have developed from ${ }^{*}$ esay ${ }^{*}$ eha.
463. The roots ha, fu (both with zero person and $n$ unber markers) and fisa (zero person marker, plural marker is), consequently, mark 3 p object in zero morphemes, which is in line with other forms marking 3 p object.
462 A Not to be understood as an indication of androphagy, e.g. hondok ninarisi" we got burns" (i.e. the fire ate us), osit hinarisi" you became wet because of the rain" (i.e. the rain ate you).
463 A Cf. the rules formulated in the description of personal prefixes p 28.
464 cf . the comparative remarks on p. 141-142.
464. cf. personal prefixes, sub 2, p 28.
465. The phoneme $s$ in these roots probably should be understood as an indication of plural; it could be the survival of a former plural marker $\underset{\underline{i s}, ~ f o l l o w i n g ~ w a t ~ a l l o m o r p h ~}{ }{ }_{\underline{W}}>{ }_{\underline{u}}$. Relationship of $\underline{s}$ to the verb root $S V$ "to do" does not seem very probably.
466. Van der Stap, p. 48,50,51.
467. Van der stap , $p, 52$.
468. Examples: isak-esin (not isakesin), isak-nom (ot isaknom), jagul-napin (not jagulnapin), lak-hinanin jagul-nysasekein, bal-hasyky etc.; a recheck on these word proved the accent.
469. Van der Stap p.95-96.
470. Van der Stap p. 89.
471. Van der Stap p. 96,98,99.
472. Van der Stap p. 98.
473. Van der Stap p. 96.
474. Van der Stap p. 97.
475. The roots marking singular object have final $S$ and as such conform with the pattern shown by other normal sinal verbs (cf. t final verbs in Yali, class IV).
476. Van der Stap p. 96.
477. Van der Stap p. 97.
478. Van der Stap.p. 7.
479. Van der Stap p. 97.
480. To elucidate the development of the Dani roots, one could bring in hypotheses similar to those, that I mentioned for Yali: nes, hes and es are cognate with nit hit it, which is a sufficient reason to consider them as prefixed roots (if with zero marker: es); the roots nysa, hysa, ysa probably have developed from resp. *nynsa; ${ }^{\boldsymbol{*}}$ hynsa, ${ }^{*}$ ynsa, which in their turn might go back to ${ }^{n}$ nynha, ${ }^{*}$ hynha, ynha; as known, $h_{a}$ is a second component root frequently found in Dani.
481. Van der Stap p. 97.
482. Van der Stap p. 90.
483. Bromley (1972) p. 37 and 107 ff.
484. Peters p. 94
485. Bromley (1972) p. 36, and also p. 161 ff .
486. These forms show 2 ps hortative marker following the object marking root.
487. Van der Stap p. 99.
488. Cf. Van der Stap pp. 31 and 99.
489. Van der Stap p. 99.
490. Cf. p. 45.
491. Cf. Zollner, Verb Paradigma p. 5.
492. In the Angguruk dialect $\underline{v}$ in the element $\underline{v b}$ is part of the object prefix.
493. The marker vn in Angguruk usually corresponds with in in Abenaho.
494. I have mentioned before, that is in more cases can be supposed to have developed from ${ }^{\boldsymbol{*}}$ ins, cf. note 460 . 496. Cf. p. 135.
495. emberuk is the durative stem corresponding with VmbV.
496. Both forms are durative stems.
497. Following the causative stem (ending in p ), the object marking root imbisa apparently lost its initial $\underset{\text { i }}{ }$ whereas the roots consonant $m b$ in that process assimilated> $f$.
498. Like imbisa, hisan is a root final a verb.
499. Cf. Bromley (1961) p. 18.
500. Van der Stap p. 141.
501. Van der Stap pp. 141-143; Van der Stap does not symbolize primary word accent on the final syllable of the mentioned stems. Moreover, the hypothetical form ${ }^{*}$ hatlaken is a nonsensical suggestion, since 2 ps is not the object there, but the actor.
504.Cf. p. 137.
502. The Dani forms suggest that the original root consonant $\underline{W}$ has been lost following the object markers; this corresponds nicely to the process which I assumed in the case of the second series of object marking roots in Yali, where an original root consonant $\underline{h}$ may have been lost.
503. Z8llner, Verb-Paradigma, p. 53, states that is frequently used in the Angguruk dialect ("eine objectform .... die sehr haufig vorkommt").
504. Bromley (1972) p. 216; for its Yali cognate cf. note 462a.
505. Of the first series only some examples were found, e.g. winimug nituk "to be angry with me".
506. I follow the Yali orthography in not writing a hyphen between the first and second components of composite verbs - and, consequently, symbolizing primary word stress on the final syllable of the first component by space only - although one reasonably could agree in favor of such a symbolization.
507. A compound root is a durative or motion stem of a primary verb, followed by the secondary verb root.
508. The same cannot be said of many second components of compound verbs.
509. The collocation of e.g. an hortative and the perfect participle ulug is frequently found in Yali. But because of the reason given they are to be described in the syntax.
514.Cf. also medial voice p. 119.
515.E.g. baltuk sowag (not ${ }^{*}$ baltuk ahowag). Unlike Abenaho, the Angguruk dialect has third past forms of the verb $V$ for all six actors (yjag, ynag, ybag, vwag, ybag, ybag,

Z8llner, Verb-Paradigma, p. 35); those marking 1 p and 2 p actors are found instead of the sV forms found in Abenaho in the third past progressive aspect composite verb forms; moreover, the vowel of the durative stem harmonizes in those cases with the vowel of the following second component, e.e. paltik-yjag (not *paltuk-yjag).
516. Van der Stap pp. 75-76.
517. The two others are mentioned in the next section.
518. Van der Stap p. 76.
519.Van der Stap p. 150.
520.E.g. wakanhy-lokon Van der Stap p. 76, also bethetha-lokon id. p. 120.
521. Van der Stap p. 29.
522. Van der Stap p. 30.

523, 524. Van der Stap p. 33.
525. Van der Stap p. 37.
526.Van der Stap p. 112, cf. note 258.
527.Van der Stap pp. 31 and 36.
528. Van der Stap p. 31.
529.Cf. the discussion of "existential verbs" pp. 124-125.
530.Van der Stap p. 129.

531,Van der Stap p. 35.
532. Bromley (1972) pp. 101 and 106.
533.Cf. p. 44.
534. The two important verbs of motion are, as stated, la "to go", and waha "to come". Others are laha "to go upward", ambV "to go downward", $k V$ "to enter", etc.
535. The proper translation of these composite verbs is a difficult task. The indication of purposeful action should be avoided in the translation, since Yali and Dani use the intentional aspect category to express such action.
536. Van der Stap p. 75.
537. Loc. cit.
538. Loc. cit.
539. Van der Stap pp. 100-101.
540.V an der Stap p. 101; cf. on the motion stem p. lll.
541.Cf. on "existential verbs" pp. 22-23.
542.Van der Stap $p .101$ sub. 2 offers an interesting example of inconsistent symbolizing of accent: although all the four forms have primary accent on the final syllable of their first components, only two are rewarded a hyphen.
543.Van der Stap pp. 10-11.
544. Bromley (1972) p. l17, note 17.
545. Bromley (1972) p. 92.
546. Bromley (1961) p. 85.
547. Cf. the studies mentioned in Anceaux (1965) pp. 8 and 50 ff , and for a different appreach Doroszewski, ch. 10 on "The concept of a word; The structure of words and their functions", pp. 231 ff.
548. The characteristic position of morphology within the framework of linguistic theory and the importance of a clear conception of the word is recently stressed again by Aronoff, pp. 5, 27 and 48.
549.Cf. e.g. note 331.
550.Cf. notes 236 and 237.
551.Cf. section 6.4.1.
552.Cf. pp. 51. 65, 75 and 146.
553.I.e. except for the third past tense category.
554. McKaughan p. 118, expresses the hope that "a formal technique of structure statistics will be developed"; only the employment of such a technique could prove the opinion which I expressed.
555. Bromley (1972) p. 7.
556. Reflexive voice may have been the semantic characteristic of a compound verb in past times, in Dani as well as in present Yali, cf. p. l22.
557. Cf. note 156.
558. Bromley's analysis suggests an other opinion; however, cf. the remarks on pp. 90-92. Moreover, the future aspect in first future forms is marked with a liquid, cf. p. 59.
559. Rather, the 1 might be related to the verb la "to go".
560. I found Dani mentioned in Wurm pp. 90-91, Healey pp. 109-110, and Voorhoeve pp. 36-37; Voorhoeve wrongly uses the term Yali for the Nipsan dialect of the Goliath language family, id. p. 46, although he rightly states that the languages of e.g. Abenaho and Angguruk (i.e. North Ngalik in his terminology) are "called Yali by the Dani people" (id. p. 36).
561. The relationship of Dani to Ekagi, spoken in the Wissellakes area would be worth a study, cf. Bromley (1966) p. 300. Larson devoted a manuscript ta this subject; Ekagi is described by Drabbe and got a place in Boelaars' attempt to give a comparative description. A study as suggested probably would have to rely on investigations which give typological agreement a far more important place than lexical agreement, cf. Wurm p. 90.
562. Barbarious in the translation must be understood in the original sense.

Notes on Appendix II

1. This summary of Western Dani morphology is based on Scoville's "Dani language notes" which contain study materials to learn Western Dani, and on my own field notes and discussion with speakers of Western Dani and bilingual Yalis.
2. Cf. p. 89.
3. The combination of marker op with tak results in the element optak>ottak, cf. pp. 83-84.
4. Forms corresponding with this root are only found, it seems, in clause final position, preceded by a durative form.
5. Cf. the same phenomenon in Grand Valley Dani, p. 92.
6. Cf. p. 77; the fact that we find a nasal phoneme in Western Dani in positions, where comparable forms and cognates in Yali show 1 is a feature not uncommonly met in the comparison of the two languages, cf. e.g. the roots na (Western Dani) and la (Yali), both meaning "to go"; cf. also the irrealis category $p .63$.
7. Cf. pp. 113 ff.
8. Cf. pp. 88-89.
9. I have argued before that these ideas of future and potentiality are not mutually exclusive, cf. p. 91.
10. Cf. p. 65.
11. Cf. p. 79.
12. Cf. the similar phenomenon in Yali p. 145.
13. Cf. the discussion on Grand Valley Dani in this respect, pp. 113-115.
14. Cf. p. 89.
15. Cf. p. 84.
16. Cf. p. 83.
17. Bromley (1972) p. 50.
18. Cf. p. 87.
19. Cf. pp. 94-95.
20. Cf. on Grand Valley Dani pp. 98-99.
21. This participle is found in similar contexts as its Yali cognate, cf. p. 98.
22. The correspondence is not only formal, but also semantical, cf. pp. 101-102.
23. The question can be raised if there is any correspondence between the morpheme it and the 1 pp postponed hortative morpheme ykit; the Grand Valley Dani counterpart of it, yk, at least suggests a relationship with l pp, cf. p. l03. 24. Cf. p. 106.
24. Cf. pp. 110-111.
25. Also meaning "to say" pp. 72-73.
26. Cf. pp. 103-106.
27. Cf. p. 76.
28. Cf. note 6.
29. Cf. pp. 83-84.
30. Cf. p. 119.
31. Cf. p. 129.
32. Cf. p. 126.
33. Cf. the Yali counterpart, pp. 118 and 129.
34. There is an accent on the element op in these forms; the resultative causative stem final syllable is stressed also in Yali, cf. p. 126.
35. Cf. p. 118.
36. Cf. section 6.8.1.
37. Cf. P. 131.
38. Cf. pp. 132-133.
39. Cf. pp. 140-143.
40. Cf. p. 137.
41. Cf. above on the causative stem, p. 169.
42. Cf. p. 148.
43. Cf. also the medial voice compound in Western Dani, p. 168, and the discussion on Yali and Grand Valley Dani progressive aspect composite verbs, pp. 147-148.

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[^0]:    del-habuhuk

