

PHONOLOGICAL AND SEMANTIC ASPECTS OF ATESO  
DERIVATIONAL VERBAL MORPHOLOGY.

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A dissertation submitted in partial fulfillment  
for the degree of Master of Arts in the  
University of Nairobi.

June 1981

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This dissertation is my original work and has not  
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with our approval as University supervisors.

A handwritten signature in cursive script, appearing to read 'F. Rottland', written over a horizontal line.

Dr. Franz Rottland

A handwritten signature in cursive script, appearing to read 'Martin Mould', written over a horizontal line.

Dr. Martin Mould

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ABSTRACT

This thesis is a morphological study of Ateso, an Eastern Nilotic language. It examines some of the verbal derivational morphology in a generative framework within the Extended Standard theory. The work has been divided into four chapters.

The first chapter deals with the background to the people who speak Ateso as a native language, and an introduction to some technical terms. These are followed by the statement of the problem, rationale for the choice of the problem, the objectives, hypotheses, literature review, the theoretical framework to be used, and the methodology to be adopted.

The second chapter gives analyses of the phonological and semantic aspects of five chosen derivational suffixes, that is, the Ventive, Itive, Applicative, Applicative-Reciprocal, and Instrumental. The phonological alternations are shown to be predictable, and general rules are given for these alternations. When discussing the semantic content of the derived forms it is shown that apparently diverse readings can be unified by deeper semantic analysis and more careful translation. Readings may be further determined by context at a higher level of interpretation such as the sentence.

Chapter III deals specifically with the formulation of lexical derivational and lexical redundancy rules. Lexical derivational rules account for the productive processes while the lexical redundancy rules take care of the cases where

there is a lexical relationship between words but neither is derived from the other. Percentage figures are given to show the degrees of productivity for the chosen extensions.

The last chapter, Chapter IV, is a conclusion. It includes general remarks on the findings of this study and indicates areas of further research.

This work also includes an appendix which gives further examples of the different semantic readings that can be determined by the context of occurrence of the different derived verbs.

List of SymbolsDiachritic features

- \* Used on forms that are unattestable.
- ? Used on forms whose attestability is doubtful.

Other Symbols

- / / indicate systematic phonemic realisations
- / indicate systematic phonetic realisation
- V Verb
- N Noun
- NC Noun Class
- P Preposition
- PP Prepositional phrase



## CHAPTER I

### INTRODUCTION

#### 1. A brief Introduction to the Ateso Language

##### 1.1 Location of Ateso Native speakers

The people who speak the Ateso language are located in three major areas in Uganda and one area in Kenya. The three major areas in Uganda are Teso District, which is within Eastern Province, the Tororo area around the town of Tororo, and the Pallisa Area in Bukedi District. The largest group is found in Teso District. The other two groups are with other districts and the influence of the neighbouring languages is quite large. The Tororo area is separated from the Teso District area by a Bantu-speaking tribe known as the Bagisu or Bamasaaba. The Pallisa group is separated from the Tororo group by a number of Bantu-speakers but the largest group is again formed by the Bamasaaba and the Bagwere.

Although the three major groups are separated by other Bantu-speakers they all belong to the Eastern Province, which means that they are quite close geographically. As one would expect, this kind of situation has led to the development of different dialects.

The fourth group of Ateso native speakers is outside the Uganda group, located in Western Kenya, in an area which is incidentally near Tororo. The Tororo and the Kenya groups are not separated by major tribes belonging to other language families, and the geographical distance is also quite close. For this

reason the two groups seem to be more closely related

Teso District shares a boundary with Karamoja District where the people speak a language known as Ngakarimjong. Since this language belongs to the same family as Ateso, that is Eastern Nilotic, the influence on Ateso is not easily discernible. Those areas bordering Bantu-speaking districts show the influence of the neighbouring tribes.

## 1.2 Linguistic Background

I would like to start by clarifying the differences between the language, the people, the district, and the use of gender in relation to these issues because often these are mixed up by non-native speakers.

The language of this study is known as Ateso [atEsO].<sup>1</sup> The people who speak this language are known as Iteso [ItEsO], and the district where this language is spoken by a majority of the people is Teso [TEsO].

There are also gender problems related to the above names. For example, a male native-speaker of of Ateso is known as Etesot [EtEsOt] and a female is referred to as Atesot [atEsOt]. The gender marker for masculine is /E/ and that for feminine is / a /. The plural of [EtEsOt] is [ItEsO] while that of [atEsOt] is [atEsO]. As can be seen above the name for the language, is identical to 'female native speakers' of the language, while the word for the people is identical to 'male native-speakers' of the language. It should be observed that the gender marker for [ItEsO] is the same as for neuter

or common gender.

It is important that the names be set out correctly because all these distinctions, when mixed up, may cause confusion. Some people have tried to get out of the problem by adding Bantu prefixes to the root as is seen in the following:

- 'Bateso' = the people, using the Bantu Ba - prefix as in 'Baganda' meaning the native speakers of the Ganda Language.
- 'Muteso' = One native speaker of Ateso, using Bantu Mu- for singular as in 'Muganda', that is one native speaker of the Ganda Language.
- 'Luteso' = the language of the Iteso where lu - as in Luganda, refers to the language.

This attempt to use the Bantu class system to solve the problem is not acceptable to the native speakers of Ateso. For this reason I have given the correct names so that we, in the field of linguistics, can at least avoid using another morphological solution to make the problem understood.

Having cleared the problem of terminology we can now have a brief look at the people speaking Ateso as a first language, and other factors affecting the language.

According to the 1969 census as reported by Ladefoged et. al. (1972) the percentage of the population in Uganda speaking Ateso as a first language falls second to Luganda. Ateso has 8.3% and Luganda has 16.3%. A few other examples to show the comparison are: Runyamkore 8.1%, Rukiga 7.1%,

Lango 5.6%, Acholi 4.4%, and Lugbara 3.7%. Since the total population for the 1969 census was 9,548,847, the above percentages can be used to calculate the number of people belonging to each group. The results are as follows: Luganda 1,566,462; Ateso 792,554, Rukiga 675,968; Runyankore 773,457; Lango 534,735; Acholi 420,149, and Lugbara 353,307. Diagrammatically these figures are as shown below:

Language	Number	%
Luganda	1,566,462	16.3
Ateso	792,554	8.3
Runyankore	773,457	8.1
Rukiga	675,968	7.1
Lango	534,735	5.6
Acholi	420,149	4.4
Lugbara	353,307	3.7

From the above figures we can see that the Iteso form the second largest single linguistic group within Uganda.

As mentioned earlier the distribution of Ateso speakers has lead to the development of different dialects. Three major dialects correspond to the three major areas mentioned above, i.e. Teso District, Tororo, and Pallisa dialects. According to Ladefoged et al. (1972) the three dialects have 87% of their words in common, so the degree of mutual intelligibility is very high.

Within Teso District itself smaller dialectal groupings do exist. Another three sub-dialects are generally accepted. The one usually regarded as the standard dialect (Hilders and Lawrence, 1957, Scotton and Okeju, 1972) is that spoken around

Ngora in Central Teso District. The other two dialects are that spoken in the North-East of the district near the border with Karamoja District, and one in the South of the district around Serere county. It is, however, not the case that these three dialects within the district are as distinct as those earlier discussed. The differences are very small indeed and often involve differences in the lexicon but not much in other areas of the grammar.

Regardless of dialect, Ateso has had foreign influences. The Baganda, in the pre-Independence period extended their influence to most of the contry and Teso, too, was affected. Then came the Waswahili and Arabs who were mainly interested in trade. Finally, the English brought their civilisation. What this intrusion meant for Teso District and other areas was that a lot of borrowing took place. As a result Ateso has a lot of borrowed words, mainly nouns, especially those related to scientific and modern cultural concepts.

The dialects of Tororo and Pallisa are even more affected by borrowing since they are actually within other linguistic areas. Most of the people in these regions actually speak more than one language and often switch from one language to the next without much problem. The Tororo Iteso can, for example, speak Lumasaaba, Dhophadhola and Luganda in addition to Ateso. Those in Pallisa can speak, for example, Lugwere, Lusoga and Luganda. Thus, the influences from these languages cannot be overemphasized.

Despite all these environmental factors it is interesting

to note that the Iteso of Tororo still retain some of the oldest items of grammar. For example, in this region we still find the use of /k/ in certain verb forms. We have, for example, the following verbs:

<u>Tororo dialect</u>	<u>Teso District dialect</u>
aki - nyam (akI-ŋam)	ai - nyam (aI-ŋam)
to eat	to eat
aki - lip (akI- lIp)	ai - lip (aI - lIp)
to pray / beg	to pray/beg

For the Imperative we have:

<u>Tororo dialect</u>	<u>Teso District dialect</u>
ko - nyam (kO-ŋam)	o - nyam (O -ŋam)
Eat !	Eat !
ki - lip (kI - lIp)	i - lip (I - lIp)
pray/beg !	pray/beg !

For nouns we have the following forms:

<u>Tororo dialect</u>	<u>Teso District dialect</u>
ekitabo (EkItabo)	eitabo (EItabo)
a book	a book
ekitoi (EkItOI)	eitoi (EItOI)
a tree	a tree

According to the Teso Orthography Committee of 1947, as discussed in Hilders and Lawrence(1957) it was agreed as a general

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a book	a book
ekitOI (EkItOI)	eitOI (EItOI)
a tree	a tree

According to the Teso Orthography Committee of 1947, as discussed in Hilders and Lawrence (1957) it was agreed as a general

principle that all words should be written in full even though normally contracted in speech. For this reason in books written in Ateso, for example Bia Kosiom translated as 'Come and Read', Awaragasia : nukolosek ko Uganda translated as 'stories/fables in Ateso', the /k/ is retained although in the actual speech of most people it is deleted.

Although Ateso is spoken by the second largest group of people in Uganda, not much attention has been given to the study of it. The little that has been done was done by the missionaries who first went to the district. The concern of these missionaries was to give newcomers the rudiments of Ateso. More will be said on this at a later stage. But it should be noted that in whatever work that has been done on the language tone has been neglected altogether, apart from mentioning that it plays an important role in the language. This study, too, will not go into the problems of tone. The major concern here is derivational verbal forms, that is, the segmental aspect.

As just mentioned, there has been very little work done on the analysis of Ateso. The only outstanding work done so far on Ateso is that by Hilders and Lawrence (1957), which was followed a year later, that is, 1958, by a dictionary-An English-Ateso and Ateso-English Dictionary - by the same authors. Both works were by foreigners who happened to have worked in Teso District for many years and were interested in writing some kind of introductory grammar for the language. They were particularly concerned that later missionaries and



and administrators from Europe get a guide to the language so that their efforts at learning the language would be facilitated.

It is a sad commentary that so far no work on Ateso has been undertaken by a native speaker of the language or any linguist for that matter. If hardly anything has been done on a traditional model one cannot even talk of the generative framework that has been the most current model occupying linguists' minds. A study in which a native speaker was involved was Scotton and Okeju (1972), in which John Okeju was a co-worker. This work, basically sociolinguistic in nature, laid emphasis on the social factors that are responsible for the integration and re-analysis of loan words to fit Ateso phonotactics and inflectional systems. The study was not directly concerned with aspects of grammar like syntax, phonology, or semantics.

On the morphology of Ateso, particularly derivational verbal morphology which I am concerned with in this study, Hilders and Lawrence (1957) do have some guidelines. Since the study is rather brief and introductory, all there is in it is something to set one thinking and worrying about the problem. The book is good from the point of view of giving pointers and possible areas of study.

Even in that brief and introductory work, it is obvious that the verbal system in Ateso is very complex. The authors give the verbal system quite a large part of their book.

The authors have this to say in the preface:

We have also decided, apart from brief references in Chapters XIV and XIX, to leave the vast question of word derivation untouched; but some idea of the magnitude of this field of study is also given by examples in Appendix I. (p. xi).

It is from here that I have picked on this interesting area - verbal derivational morphology. I plan to handle this problem in a generative framework. So far no similar work has been done.

Below is an illustration of some of the intriguing processes in Ateso verbal forms. The examples show how a number of complex verbs can be derived from a simple verb using different affixes or combinations of affixes with different semantic functions.

Simple verb

ai - buk  
to pour/ empty

Derivational Processes

1. Ventive

a - buk - un  
to pour towards the speaker

2. Itive

a - buk - Or  
to pour away from speaker

3. Applicative

a - buk - OkIn  
to pour for someone

4. Applicative - Reciprocal

a buk - okin  
to pour for each other

5. Instrumental

a buk - IO  
to pour with

6. Causative

aI - tu - buk  
to cause to pour

7. Habitual

a - buk - EnEn  
to pour habitually

8. Transitive Repetitive

a - buk - u - buk  
to pour and pour - 'to pour repetitively'

9. Intransitive Repetitive

a - buk - u - buk - u - toi  
to pour and pour and finish - 'to pour  
repetitively'

Combination of Extensions

10. Ventive + Instrumental

a - buk - un - IO  
to pour - towards speaker - with

11. Itive + Instrumental

a - buk - Or - IA  
to pour - away from speaker - with

12. Applicative + Instrumental

a - buk - OkIn - IA

to pour - for someone - with

13. Causative + Ventive + Instrumental

aI - tu - buk - un - IO

to cause - to pour towards speaker - with

14. Causative + Itive + Instrumental

aI - tu - buk - Or - IA

to cause - to pour away from speaker - with

15. Causative + Applicative + Instrumental

? aI - tu - buk - OkIn - IA

to cause - to pour - for someone - with

The above examples are just part of the possible derivations that are found in Ateso. There are still many others which I have not included here because I do not intend to tackle them in this study. I have given the above examples to show the complexity of Ateso verbal derivational processes. I have also included some examples of possible combinations in order to show the possible order of extensions when more than one co-occur. It would appear that the Instrumental must always be the last extension, and the Instrumental also seems to co-occur with almost all the other extensions. The applicative-~~Reciprocal~~ does not co-occur with the Instrumental. Since I do not intend to deal with all these extensions I will not say more on those which are not of my present concern. My study deals with the first five extensions, that is, the

Ventive, Itive, Applicative, Applicative-Reciprocal, and Instrumental.

The examples above only show representative meanings and forms. There are other distinctions which will be made in the semantic interpretation of each of these forms and also in the phonological alternations that are relevant to the study. This will be handled in section 2.1.

The intention of this study is to find out what the native speaker's competence is as far as verbal derivations are concerned. In other words, I shall attempt to show what the native speaker "knows" to be derivable given a simple verb root, what is possible but unacceptable, and what is impossible. I am assuming that the native speaker knows that some verb roots can be extended using particular extensions and that others are restricted. This work will then show what causes acceptability or unacceptability; is it syntactic or semantic features that cause restrictions? In addition I shall try to show how productive the derivations are by use of percentage figures. I shall also attempt to show the inter-relationships among the various derived forms.

### 1.3 The Problem

It is the intention of this study to give an explicit and adequate account of the productivity of derivational verbal processes in Ateso using a generative-transformational

framework.

To look into the productivity of these processes involves finding out what processes are regular and which ones are irregular. One should be able to say what causes irregularity. The regular processes show some kind of systematic behaviour while some of the cases may be quite ad-hoc. There may, of course, be sub-regularities within the irregular forms.

A study of the productivity of derivational verbal forms, therefore, entails a systematic and explicit representation of the various degrees of productivity, an account of significant generalisations that can be made either in terms of lexical derivational rules or lexical redundancy rules.

### 1.3.1 Rationale for the choice of the above problem

As mentioned earlier, very little published work is available on the language. Whatever little has been done is quite introductory in the sense that the authors were concerned mainly with covering as many aspects of the language as possible without giving detailed analyses. They were, in fact, more concerned about morphophonemic alternations than in the syntactic and semantic aspects of the processes. Emphasis was laid on the productive processes to such an extent that the reader may get the impression that all extensions are possible and therefore all one needs to know is a simple verb and the different extensions. The rest is easy. This is, of course, not the case. There are some

restrictions.

Since so far no work has been centred on showing the close lexical relationships among the various derivational processes, it is the intention of this study to show significant generalisations and redundancies that exist in these processes. It is also hoped that some statements will be made as to which processes are regular, which are partially regular, and which are completely irregular. This will be done following other recent studies of morphology using a transformational generative framework. Among these is Mould (1978), which gives an analysis of the productivity of manner adverbs in Luganda using lexical derivational and lexical redundancy rules.

Mould's work is based on the work done by Aronoff (1976), Jackendoff (1975) and Thompson (1974). All the above-mentioned linguists agree that the place for derivational morphology is in the lexicon, before lexical insertion. The major differences concern the nature and role of derivational morphological rules and how to handle productive versus non-productive or semi-productive processes. For example, Jackendoff (1975) makes use of a system of lexical redundancy rules (LRRs) to account for unproductive processes, and states that the productive processes are taken care of by using LRRs generatively. Aronoff (1976), as discussed by Mould (1978), proposes word formation rules (WFRs) which operate on existing words to produce other words, new ones included. According to Aronoff, only word formation rules, which are productive by definition, can indicate redundancies.

Mould extends this study by distinguishing productive from unproductive processes by combining Thompson's (1974) work with those of Aronoff and Jackendoff.

Byangwa (1979) extends the work done by Mould (1978) so as to cover greater latitude. She also makes a few modifications of Mould's work by making use of percentage figures to show the degrees of productivity of nominalisation processes.

It is the intention of this study to try to make use of this framework in an area of derivation other than nominalisation. This study will show how complex verbs can be derived from simple verbs, and how far the model can be extended to apply in a language that is not Bantu.

### 1.3. 2 Objectives

In order to show the nature of productive versus non-productive or semi-productive processes and the relationships between these processes, data from Ateso will be given in sufficient quantities. Attention will be focussed on the following:

- a) the semantic content of the morphemes and the derived verbs
- b) selectional restrictions
- c) syntactic features, if any.

### 1.3.3. Scope and limitations

It is not the intention of this study to enter into



the controversy between the Lexicalist Hypothesis (the origin of my framework) and the generative semanticists (the major opponents of the lexicalists). For a discussion of the different ways of handling derivational and lexical representation the reader is referred to Chomsky (1970), Lakoff (1971), Jackendoff (1975), Aronoff (1975), and Mould (1978). My primary concern is to show how far the chosen model works using different data but I am not concerned with discussing the reasons why one model is better than another. At any rate, I think it is fair to say that most linguists accept some form of the lexicalist hypothesis.

#### 1.3.4 Hypotheses

I have chosen five extensions to show how a simple verb root can be used to derive other, complex verbs. There are several other possible extensions such as /-enen/ (habitual)  $t \begin{Bmatrix} w \\ y \end{Bmatrix} V$  (Causative), Root- V-Root (repetitive), but I have limited myself to these five with the intention of finding out, using different verbs, how productive these processes are.

The following hypotheses are put forward:

- 1) Since every verb root in Ateso belongs to either of two morphological classes:

O - class and I - clas<sup>2</sup>, the shape of a specific verbal affix may depend on the morphological class to which the verbal root belongs.

- 2) Each verbal root has basic morpho-syntactic features associated with it which identifies it as either a punctual verb, a durative verb, or a stative verb. This grouping may affect the degree of productivity of the different derivational processes.
- 3) The framework chosen for this study has been shown to work for nominalisation processes but the application of this framework to verbal derivational processes may not work as well.
- 4) Since the framework chosen for this study has been shown to work for Indo-European and Bantu languages, there is no guarantee that it will apply as well to an Eastern Nilotic language like Ateso.

#### 1.4 Literature Review

##### 1.4.1 Traditional Grammarians

No work on Ateso has been done using a traditional model. By the time the missionaries came to Teso there was already a move towards structuralism. This will be discussed under section 1.4.2 below.

##### 1.4.2 The structuralists

The only comprehensive work that has been done on Ateso, as mentioned earlier, is Hilders and Lawrence (1957) who

- 2) Each verbal root has basic morpho-syntactic features associated with it which identifies it as either a punctual verb, a durative verb<sup>3</sup>, or a stative verb. This grouping may affect the degree of productivity of the different derivational processes.
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- 4) Since the framework chosen for this study has been shown to work for Indo-European and Bantu languages, there is no guarantee that it will apply as well to an Eastern Nilotic language like Ateso.

#### 1.4 Literature Review

##### 1.4.1 Traditional Grammarians

No work on Ateso has been done using a traditional model. By the time the missionaries came to Teso there was already a move towards structuralism. This will be discussed under section 1.4.2 below.

##### 1.4.2 The structuralists

The only comprehensive work that has been done on Ateso, as mentioned earlier, is Hilders and Lawrence (1957) who

examined Ateso grammar from a structural point of view.

Enough has been said on this in earlier sections.

We can only add here that the concern of these grammarians was the segmentation of language into morphemes and phonemes, and the classification of morphemes and morphemes by grouping them together according to meaning and behaviour. This involved a listing of morphemes and allomorphs for the different forms and listing the meanings for these forms. No underlying meanings are posited.

Within this kind of framework one can see that there are some inadequacies in accounting for what is going on. One of the most striking inadequacies is the lack of explicit rules to show exactly what changes take place and in what environments. For example, it is not easy for us to know when to use any of the suffixes discussed, or if the suffixes can be used with all verbs. In other words the work done by Hilders and Lawrence has not accounted for the native speaker's competence.

From the above, we can see why the generative became so important. It is within this school that the idea of the native speaker competence came through. It is in this school that the idea of explicit rules and levels of adequacy in description came into being. I will, therefore, give more detail on the generative - transformationalists. The birth of the framework I have chosen came within this group of linguists and so I am paying more attention on this group.

### 1.4.3 The generative transformationalists

1.4.3.1 The first insight into ways of handling derivational morphology from a generative viewpoint is found in Chomsky's Aspects (1965). At this stage, as is usual with any breakthrough, ideas are not very definite. Possibilities are given but are always improved upon later.

Chomsky points out in this work that derivational processes give more problems to the generative transformation than inflectional ones. The reason for this, Chomsky says, is that these derivational processes tend to be "sporadic" and quasi-productive.

Chomsky then gives an outline of how morphological processes might be handled. The ideas given can be summarised in the following outline:

- 1) For productive derivational processes there is not much problem.

#### Example:

Nominalisation in English as in say 'destruction' and 'refusal'. These nominals can be derived from the verbs 'destroy' and 'refuse' respectively which are entered into the lexicon. When the verbs appear in nominalisation transformations phonological rules which determine that

nom  $\frown$  destroy  $\longrightarrow$  destruction  
nom  $\frown$  refuse  $\longrightarrow$  refusal

- 2) For quasi-productive processes problems arise. As an example Chomsky gives the following:

- i) horror: horrid : horrify
- ii) terror: \*terrid : terrify
- iii) candor: candid : \*candify

There do not seem to be any general rules that will produce such derivations. This shows that there are gaps in the lexicon.

Chomsky proposes that these items might be accounted for by putting them in the lexicon separately. But he is not satisfied with this solution since there is a relationship between the phonological components of the grammar. He says there is a certain degree of predictability of these forms and therefore the internal of these forms should be given.

Chomsky also notes that there is a "wide class of examples with varying degrees of productivity". Although he sees the problem he is not certain how to handle it. He gives various suggestions as to how these quasi-productive processes might be handled. Here are some of his suggestions:

- a) to regard the gaps as accidental gaps. General rules can be used to account for both occurring processes and the non-occurring ones (cf. Lakoff, 1971).
- b) to extend the theory of the lexicon to permit some "internal computation". For example, forms like telegraph, horrify and frighten will be entered in the lexicon as:

- i) tele  $\widehat{\text{stem}}_1$  [F - - - -]
- ii)  $\text{stem}_2$   $\widehat{\text{ify}}$  [G - - - -]
- iii)  $\text{stem}_3$   $\widehat{\text{en}}$  [H - - - -]

(Chomsky 1965: 187)

General rules will enter these forms.

c) to have the lexicon contain another form of entries such as:

- 1) graph [ + stem<sub>1</sub> - - - - - ]
  - ii) horr [ + stem<sub>2</sub> - - - - - ]
  - iii) fright [ + N + stem<sub>3</sub> - - - - - ]
- (loc. cited)

These forms will be inserted in strings formed by prior insertions in the preterminal strings of items selected from earlier items. For morphologically complex forms several of these layers may be used. But there are contextual restrictions on these replacements so as to choose the right stem. For example, stem<sub>1</sub> is replaced by graph, scope, phone in the environment after tele-.

Chomsky also observes that the feature composition of the items analysed is important for the extensions of base derivations within the lexicon. Features like transtivity play a role. For example, the verb frighten will take an animate object. Chomsky is not certain how a rule to account for this can be formulated.

- d) that the lexicon be allowed to contain context - sensitive rewriting rules to effect these extensions. This will affect the structure of the lexicon, and Chomsky dismisses this as not being preferable.
- e) that the forms like frighten be taken care of by a transformation. This is the generative semanticist approach which relies on underlying causative forms

and constructions. Lakoff (1971) takes this view. It is as the result of this approach that Chomsky develops the Lexicalist Hypothesis which is opposed to the Transformation Hypothesis of people like Lakoff.

We can summarise Chomsky's position in Chomsky (1965) as being that of uncertainty as to the ways of handling the quasi-productive processes. He exposes the problem, gives suggestions, but he does not give explicit ways of handling these irregular forms.

1.4.3. 2 Chomsky (1970) is basically a development of the Lexicalist Hypothesis. Here Chomsky suggests that certain descriptive problems in grammar can be handled by

- a) enriching the lexicon and simplifying the categorial component of the base.
- or b) simplifying the base at the cost of greater complexity of transformations.

Chomsky chooses the former and develops what is called the Lexicalist Hypothesis. In this paper Chomsky rejects the argument that a nominal such as 'Bill's decision to go' is derived transformationally from a sentence such as 'Bill decided to go'. Chomsky proposes that the nominal is generated by the base rules as an NP with no S-node in the derivation. The paper then continues to investigate the Lexicalist Hypothesis and to explore the consequences that it suggests for the theory of syntax as a whole.



1.4.3.3. Jackendoff (1975) agrees with Chomsky (1970) in rejecting the transformationalist hypothesis of handling derivations. This paper is concerned with the development of a more highly articulated theory of the lexical treatment of nominals and the extension of this theory to a wide range of cases other than nominalisation.

Jackendoff discusses the three levels of adequacy in description that were discussed by Chomsky for grammatical theory. For observational adequacy each lexical item is provided with sufficient information to describe its behaviour in the language. For descriptive adequacy the theory must express the relationships, subregularities and generalisations among lexical items. To reach the level of explanatory adequacy the theory should describe how particular relationships and sub-regularities are chosen in the lexicon, for example, why 'decide' is more basic than 'decision.'

Two theories of the lexicon are presented in this paper, the Impoverished Entry theory and Full Entry theory. I am not here concerned with the discussion of the advantages and disadvantages of one theory over the other, but I will discuss briefly the one that Jackendoff adopts - the Full Entry theory.

Jackendoff's theory says that 'decide' and 'decision' have distinct but related lexical entries. This is a departure from Chomsky's original position that 'decide' and 'decision' constitute a single lexical entry unmarked for the syntactic feature that distinguishes verbs from nouns. The

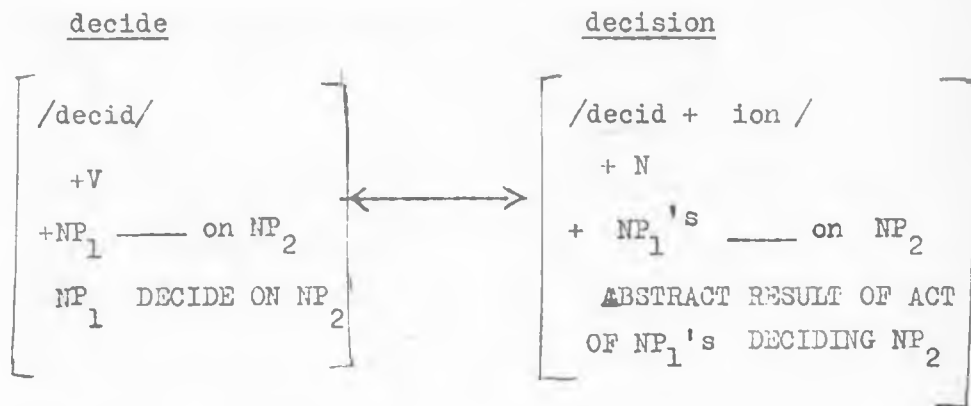
phonological form decision, Chomsky said, is inserted into base trees under the node N, decide under V.

But for the rest of the discussion Chomsky's theory and Jackendoff's are equivalent. Jackendoff's theory, of course, extends to the treatment of other kinds of lexical relations like idiomatic expressions, prefix-stem verbs, causation in verbs and noun compounding.

Jackendoff says that the lexicalist hypothesis relates 'decide' and 'decision' by a lexical redundancy rule within the lexical component. The Full Entry theory assumes that both 'decide' and 'decision' have fully specified lexical entries and that the redundancy rule plays no part in the derivation of sentences. The redundancy rule, according to this theory, shows as redundant the information in a lexical entry which is predictable by the existence of a related lexical item. For example, a redundancy rule will show that 'decide' is related to 'decision' without one of them being derived from the other.

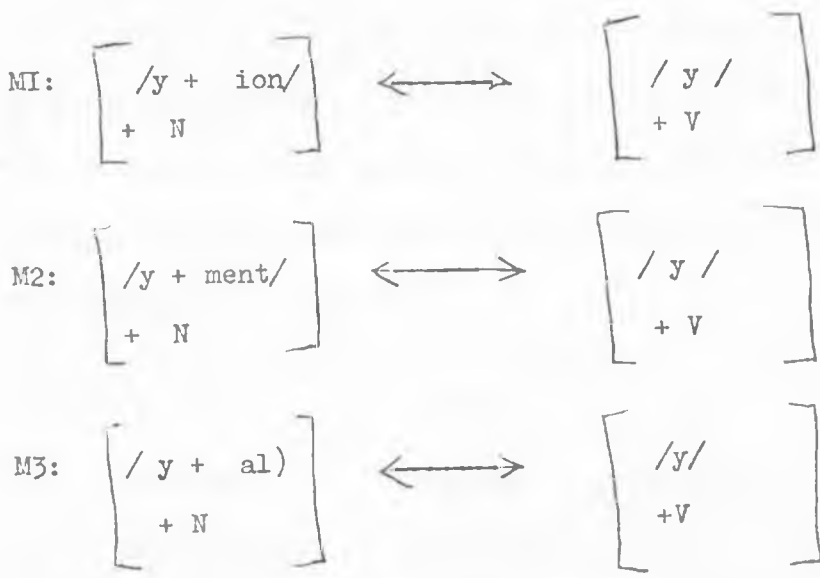
Jackendoff's paper can be summarised as having made the following contributions:

1. He developed a formalism that uses redundancy rules not for part of the derivation of lexical entries, but for part of their evaluation. This is based on the notion 'separate but related lexical entries.' For example, 'decide' is related to 'decision' but one of them is not derived from the other. The two items will be shown to be related by use of a two-way arrow,  $\longleftrightarrow$  as follows:

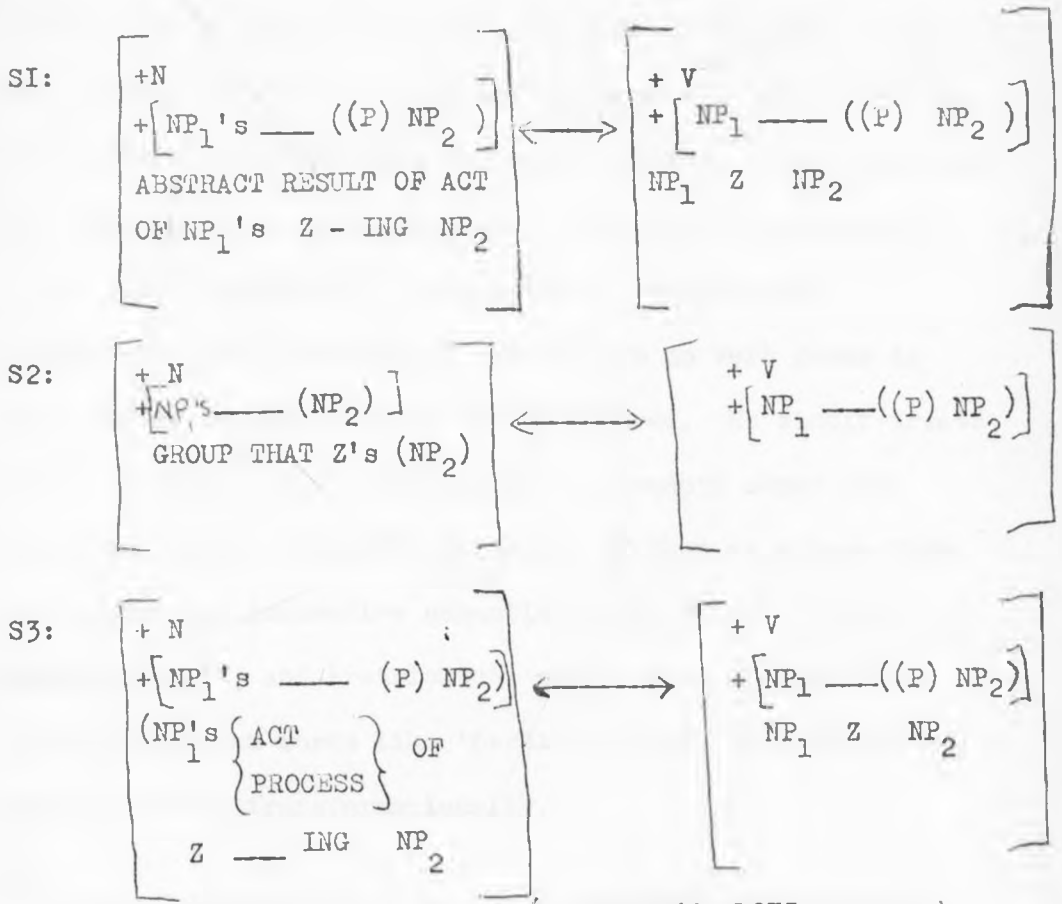


This kind of formalism is different from previous theories.

2. Lexical rules in Jackendoff's theory are separated into morphological and semantic redundancy rules. The M-rules must play a role and the S-rules may, in every lexical evaluation in which entries are related. Jackendoff says that the redundancy rules do not completely specify the contents of one entry in terms of another, but leave some aspects open. Some of his morphological rules are stated as follows:



The corresponding semantic rules are as follows:



(Jackendoff 1975: P. 650)

Jackendoff gives an example of the cross-classification of the morphological and semantic relations in the following table of nouns, where each row contains nouns of the same semantic category, and each column contains nouns of the same morphological category:

	MI	M2	M3
SI:	discussion	argument	rebuttal
S2:	congregation	government	
S3:	copulation	establishment	refusal

3. In the discussion of nominalisation, Jackendoff has tried to take care of the native speaker's intuition about the nature of generality in the lexicon. He pays attention to derived forms that have no lexical sources since these form an important part of the lexicon. He gives the example of words like 'perdition', 'retribution', 'aggression', 'aggressor' and 'aggressive' which have no verb forms in the lexicon from which they can be derived. He simply treats these as items with lexical gaps. Jackendoff shows that they are related without having one of them as a base form. He rejects the generative semantist position that items like 'perdite' and 'retribute' can be used as underlying forms from which words like 'perdition' and 'retribution' can be derived transformationally.

4. The solutions which were developed specifically with nominalisation in mind are shown to be successful in other sectors of the grammar. The following results are indicated:

- a) the theory allows the lexicon to accommodate comfortably both regular and ad-hoc facts without use of absolute exceptions or transformations.
- b) causative verbs have been neatly accounted for by treating them as separate but related forms using related morphological and semantic rules. The syntactic component is left unchanged by using the power of the lexicon to express the partial regularity of some generalisations.

- c) Idioms which cause problems of analysis have been accounted for by listing them in the lexicon and allowing them to undergo normal lexical insertion. Since the structure of the entries goes beyond the word level, the idiom must be inserted onto a complex of deep-structure nodes, in contrast with ordinary words which are inserted onto a single node.

We can conclude that Jackendoff has succeeded in justifying a theory of the lexicon using a relatively straight-forward class of intuitions.

1.4.3.4 Mould (1978) criticises Jackendoff (1975), and Aronoff (1976) because they fail to make a real distinction in their rules between psychologically real, productive processes and non-productive ones. For Mould, a generative framework requires that the psychological reality of those distinctions be examined. That is, a study ought to find out which processes the native speaker is aware of. Jackendoff's work accounts for productive forms by using the same lexical redundancy rules. This seems to bundle together both productive and non-productive processes. The same can be said of Aronoff's formulation as discussed by Mould.

Mould uses two different types of rules to distinguish the fully productive processes and the non-productive ones. He utilizes Jackendoff's lexical redundancy rules and Thompson's (1974) lexical derivational rules. Mould's effort to combine these groups of rules leads to a clear analysis of nominalisation processes in Luganda.

1.5

Theoretical Model

A brief Outline of Mould's Model

Mould examines five manner adverbial prefixes in

Luganda - { ki } { ka } { bu } { lu } { ma. }

His examination includes a look at the semantic content of the prefixes, the co-occurrence possibilities of adverb stems and prefixes, the kinds of nouns and verbs or adjectives that may be derived and the degree of productivity and acceptability of new forms. His conclusion is that { ki } is the most productive adverb while the others are not productive.

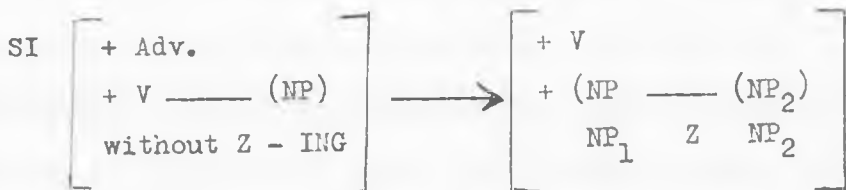
For the non-productive processes Mould gives the following examples of lexical redundancy and semantic interpretation rules:

butaagaane 'reluctantly'

-gaan- - 'agree'



The root -gaan- means 'agree', taa is the negative morpheme and the bu - is the prefix.



These rules account for { lu } and { bu }.

For productive { ki } Mould formulates a lexical derivational

rule of the following type:

$$\begin{bmatrix} ki \\ + CL 7 \\ lika N \end{bmatrix} + \begin{bmatrix} N \\ + human \\ + CL 1/2 \end{bmatrix} = \begin{bmatrix} ki + N \\ - CL 1/2 \end{bmatrix}$$

1.6 Modifications

As observed by Byangwa (1979), Mould's framework does not give a method of accounting for varying degrees of productivity. It is only concerned with the productive and non-productive processes. Byangwa proposed to us percentage figures to show degrees of productivity. I shall follow this idea. I will have in my work similar rules to those pointed by Byangwa. This means that for productive processes lexical derivational rules will be formulated. These will still have categorial and semantic features incorporated in them. This is not a modification of the model chosen. The modification comes in the use of percentage figures in addition to the rules. For the non-productive processes, lexical redundancy rules will be used.

In order to show the various degrees of productivity percentage figures will be indicated. These will be calculated by taking the number of the verbs that can be extended in a particular group and dividing it over the number of verbs in that group and then multiplying by a hundred. We hope that no process will be totally unproductive.



## 1.7 Methodology

In the collection of the data for this study, I used some of my relatives as informants, and of course, relied quite heavily on my own intuitions about the language. Hilders and Lawrence's (1958) dictionary was also helpful in giving simple verb forms.

An Appendix has been given in which three significant groups of verbs in Ateso have been indicated. The idea of having three significant divisions in the verbs has been borrowed from Dimmendaal(1980)in which similar groups were decided on for Turkana which belongs to the same language family as Ateso, that is, Eastern Nilotic. Only a limited number of verbs have been included in the Appendix to show the various degrees of productivity and regularity in Ateso verbal derivation.

The whole thesis then has four chapters. The first is this introduction to relevant points of discussion in later chapters. Chapter 2 shows the phonological alternations and the semantic content of the derivational affixes, and the resulting derived forms. In chapter 3 a specific discussion of productivity is given. It is here that an attempt is made to write lexical rules. The fourth and last chapter is a commentary on observations made, remarks on issues of further interest, and a brief conclusion. Appendices are also provided.

FOOTNOTES

1. Capital letters are used here and later in the rest of the chapters, to indicate [-ATR] which are not in an ordinary typewriter.
2. I - class verbs have /-i-/ in the initial position of the root and also have prefix /i-/ in the imperative. O-class verbs have roots with no initial /i/, and have /0-/ as prefix marker in the imperative.
3. Punctual and durative verbs are collectively called active verbs as opposed to stative verbs.

## CHAPTER II

### Introduction to Verbal Derivation in Ateso

#### 2.1. Phonological Aspects

I want to start the study of derivational processes in Ateso by giving an introduction to some phonological alternations that are relevant to the discussion. Although my primary concern in this study lies in the semantic and syntactic content of the various derivational affixes I cannot overlook the phonological changes that take place in the derivational processes. Below are some of the relevant alternations.

Ateso has nine vowels which belong to either of two harmony sets distinguished by the feature "advanced tongue root" ATR. Vowels belonging to the [+ATR] set are i, e, o, u, and those belonging to the [-ATR] set are I, E, O, U. The vowel /a/ may co-occur with both [+ATR] and [-ATR] vowels. This can be exemplified in the infinitive markers for verbs where we can have both [ai -] and [aI-]. The vowel a does not take part in vowel harmony; furthermore it seems to be opaque, that is, it does not allow vowel harmony to go through it.

The vowel quality of the derivational suffixes depends on the advanced tongue root feature of the preceding verbal root. If the vowel in the root is

[+ATR] the suffix will have a [+ATR] vowel. If the vowel in the root is [-ATR] then the suffix will have [-ATR] vowels.

### 2.1.1 The derivational morphemes

There are a number of forms that are realized for each of the derivational affixes chosen for discussion. Since general rules can be written for the changes that take place I would like to set up underlying forms which will be used to represent the other realizations when the discussion starts. The underlying forms are as follows:

#### 1. /-Un/ for the Ventive<sup>4</sup>

The basic meaning of the ventive is 'direction towards the speaker.' The notion of 'direction' here may or may not indicate 'motion', depending on the type of verb.

#### 2. /-Ar/ for the Itive<sup>5</sup>

The basic meaning of the /-Ar/ suffix is 'direction away from speaker'. The notion of 'direction' here is the opposite of the Ventive. The suffixes /-Ar / and / -Un / are thus deictic.

#### 3. / -akIn / for the Applicative

The meaning of the Applicative morpheme is basically benefactive/locative. It is for this reason that it is not just called the benefactive. The morpheme /-akIn/ can be compared to the morpheme /- ira / in Bantu which functions

in much the same way. It has generally been called the 'Applied' or 'prepositional' by many Bantuists.

4. /-akIn - [+ATR]/ for the Applicative - Reciprocal

The basic meaning of the Applicative-Reciprocal suffix is 'for each other'. I have given the suffix the name Applicative-Reciprocal because the meaning of the suffix when incorporated embraces the meaning of the Applicative as well as the Reciprocal. The two morphemes /-akIn/ and [+ATR] are treated as one. They constitute one suffix which includes an abstract feature [+ATR].

5. /-Ia/ for the Instrumental

The Instrumental basically means 'with something'. The meaning embraces 'instrumental' and 'causal' aspects.

These underlying forms all have [-ATR] vowels. General rules will transform these forms to different realisations when the root morpheme is [+ATR]. Ateso has the [+ATR] feature as the more dominant feature in these derivational processes. Because of this a basic rule can be stated that one [+ATR] in a form can change all [-ATR] vowels to [+ATR], except where /a/ is in the form in which case vowel harmony is blocked. Details of these processes will be shown in the discussion of specific affixes. It should be noted that the Applicative-Reciprocal suffix has an abstract feature [+ATR] which is









Roots without /a/ operate normally.

Examples:

c. a - kOkO → a - kOkO - Un  
to steal to steal and bring towards speaker

d. a - nunuk → a - nunuk - uun<sup>7</sup>  
to fold to fold towards speaker

There are a few verbs in Ateso which introduce a vowel when a derivational suffix is added to a simple infinitive form. It is not predictable what vowel is introduced since examples are few in the language.

Examples:

4a. a - Om OO m → a - OmOOm - O - Un  
to think to think out

b. a - ilelekej → a - ilelekej - a - Un  
to dance for rain to dance for rain so that  
it comes

The evidence for this process is so scanty that one cannot make a conclusive statement on the behaviour of these forms.

II. The Itive

When derivation takes place using the Itive Suffix roots with [+ATR] vowels take suffix [-Or] and those with [-ATR] vowels take [-ar]. Both [-Or] and [-ar] are

**[-ATR]**. The choice of the allomorph here is no longer phonologically conditioned and contradicts vowel harmony. The outcome is not phonetic. We can only say that some historical process took place, as has happened in Kalenjin (Rottland, personal communication), to bring about this phenomenon. Possibly there was a **[+ATR]** vowel corresponding to /a/, possibly /ʌ/, but because it was so close in speech to /o/ the two merged and /o/ became dominant. But this is not our concern here.

The vowel /a/ here behaves like **[-ATR]** vowels.

Examples:

Roots with **[-ATR]** vowels

- 5a. a - Ibap      →      a - Ibap - ar  
to slap                      to slap someone/something  
so that he/it moves  
away from speaker.
- b. a - gwEl      →      a - gwEl - ar  
to buy                      to buy and take away from  
speaker
- c. a - IkIs      →      a - IkIs - ar  
to scrape                      to scrape away from speaker
- d. a - InOm      →      a - InOm - ar  
to hit                      to hit someone/something so  
that he moves away from speaker



suffixes.

Just as is the case in the Ventive, disyllabic and polysyllabic **roots** that have /a/ as last vowel show that vowel harmony is interrupted by the presence of /a/.

Examples:

7a. a - ibuŋa → a - ibuŋa - ar  
to beat to beat someone/something so  
that he/it moves away  
from speaker

b. a - bolia → a - bolia - ar  
to play to play while going away from  
speaker

For the verbs which introduce a vowel for the Ventive a similar process takes place for the Itive.

Examples

8a. a - OmOOm → a-OmOOm - a - ar  
to think to think out something that is  
far away in the mind

b. a - ilelekej → a - ilelekej - a - ar  
to dance for rain to dance for rain while going  
away from speaker

Another rule is introduced to change /o/ to /a/ when the suffix /-ar/ is introduced. This rule might be called Vowel Assimilation rule.

III. The Applicative

Roots ending in a consonant and having [-ATR] vowels and those with /a/ take the suffix [-akIn]; those with +ATR vowels take [-OkIn], and those that end in a vowel take either [-IkIn] for [-ATR] or [-ikin] for [+ATR] vowels.

Examples

Roots with [-ATR] vowels

- 9a. a - Ibap            →        a - Ibap - akIn  
      to slap                    to slap        for someone
- b. a - gwEl           →        a - gwEl - akIn  
      to - buy                    to buy        for someone
- c. a - IkIs            →        a - IkIs - akIn  
      to scrape                    to scrape     for someone
- d. a - InOm            →        a - InOm - akIn  
      to hit with a stick        to hit with a stick for someone
- e. a - IcUm            →        a - IcUm - akIn  
      to spear/pierce            to spear/pierce for someone

Roots with [+ATR] vowels

- 10a. ai - pet           →        a - pet - okin  
      to kick                    to kick        for someone
- b. ai - dip            →        a - dip - OkIn  
      to punch                    to punch        for someone

- c. ai - buk → a - buk - OkIn  
to pour/empty to pour/empty for someone

It should be noted that both [-akIn] and [-OkIn] are [-ATR]. This is a similar situation to the [-ar] / [-Or] alternation in the Itive. In addition, it is to be observed that while we expected 'a - pet - OkIn' from 'ai - pet' the suffix is [-okin]. This is mid-vowel assimilation the other way round. It takes place after choice of the suffix.

Roots which end in a vowel

- 11 a. a - ipo → a - ipo - ikin  
to cook to cook for someone
- b. a - kO k → a - kO kO - IkIn  
to steal to steal for someone

The verbs with [+ATR] end vowels take a suffix which is similar to that of the Applicative-Reciprocal extension. This is due to the regular application of vowel harmony. To determine which is which will be done by looking at the context.

Disyllabic and polysyllabic roots that end in /a/ again take the [-ATR] suffix.

Examples:

- 12a. a - ibuŋa → a - ibuŋa - IkIn  
to beat to beat for someone
- b. a - bolia → a - bolia - IkIn  
to play to play for someone

IV. The Applicative- Reciprocal

As said earlier, the Applicative-Reciprocal has an abstract feature [+ATR] which is part of the suffix. The feature [+ATR] must be in the position shown. It works backwards to affect the vowels that precede it by making them all [+ATR] if they are [-ATR]. The only time this rule does not operate fully is when there is /a/ somewhere in the word. In this case vowel harmony will not work on /a/ or across it because of its opaqueness.

The roots that take the suffix [a-kIn] in the Applicative now take [a-kin]. Those with suffix [-OkIn] in the Applicative now take [-okin], while those that take [-IkIn] or [-ikin] all take [-ikin] in this extension.

Examples:

Roots with [-ATR] vowels

- 13a. a - IbaP → a - IbaP - akin  
to slap to slap each other

- 13b. a - gwɛl → a - gwɛl - akin  
to buy to buy for each other
- c. a - IkIs → a - IkIs - akin  
to scrape to scrape for each other
- d. a - InOm → a - InOm - akin  
to hit (with a stick) to hit (with a stick) each other
- e. a - IcUm → a - IcUm - akin  
to spear/pierce to spear/pierce each other

Roots with [+ATR] vowels

- 14a. ai - pet → a - pet - okin  
to kick to kick each other
- b. ai - dip → a - dip - okin  
to punch to punch each other
- c. ai - buk → a - buk - okin  
to pour/empty to pour/empty for each other

Roots which end in a vowel

- 15a. a - ipo → a - ipo - ikin  
to cook to cook for each other
- b. a - kOkO → a - koko - ikin  
to steal to steal for each other

Roots that introduce a vowel

- 16a. a - OmOOm → a - omoom - o - ikin  
to think to think for each other



- b. a - ilelekej → a - ilelekej - a - ikin  
to dance for rain to dance for rain for each other.

As is seen above vowel harmony operates in all cases except where /a/ interrupts the operation because of its opacity.

V. The Instrumental

Roots that have [-ATR] vowels and those with /a/ take the suffix [-Ia] and those with [+ATR] vowels take [-IC]. Just as in the Itive and Applicative, the allomorphs [-Ia] and [-IO] are both [-ATR]. They are not phonologically conditioned.

Examples:

- 17a. a - Ibap → a - Ibap - Ia  
to slap to slap with
- b. a - IkIs → a - IkIs - Ia  
to scrape to scrape with
- c. a - InOm → a - InOm - Ia  
to hit (with a stick) to hit with
- d. a - IcUm → a - IcUm - Ia  
to spear/pierce to spear/pierce with

Roots with [+ATR] Vowels

- 18a. ai - pet → a - pes - IO  
to kick to kick with

18b. ai - dip → a - dip - IO  
to punch to punch with

c. ai - buk → a - buk - IO  
to pour/empty to pour/empty with

Another phonological change takes place when the last consonant of a root is /t/. The /t/ changes to [s] before a high vowel as is seen in 'a - pes - IO'.

When a root ends in a vowel a series of three vowels is created. In these cases two things happen - either the high vowel of the suffix /-Ia/ becomes a glide or the high vowel is lost altogether. Gliding seems to take place in monosyllabic roots with low vowels, and loss or deletion takes place in disyllabic or polysyllabic roots where the penultimate vowel is high.

Examples

19a. a - ipo → a - IpO - yO  
to cook to cook with

b. aI - la → a - la - ya  
to be clean to be clean with

c. a - ibuŋa → a - ibuŋa - a  
to beat to beat with

d. a - bolia → a - bolia - a  
to play to play with

Roots that introduce a vowel when an extension is

introduced behave generally in the same way as those roots that end in a vowel. The vowel /O/ is assimilated to /a/ just as in cases cited earlier.

Examples:

20a. a - OmOOm      →      a - OmOOm - a - a  
to think              to think              with

b. a - ilelekej      →      a - ilelekej - a - a  
to dance for rain      to dance for rain      with

Some of the changes have a historical explanation but this is not our concern here.

2.2. Semantic Content of the Derivational Morphemes

2.2.1 Verbal Affixes

The verbal affixes chosen for this study happen to be suffixes, but a verbal derivational affix may also be an infix as in the causative. For the causative the infix is composed of a consonant /t/ and a vowel. If the root contains a glide the infix may optionally include a glide as well which will be inserted between the /t/ and the vowel.

Examples

21a. aI - ʃ am      —      aI - ta - ʃ am  
to eat              to cause      to eat

21b. a - gwEl      →      ai - twE - gEl  
to buy                      to cause to buy

It is not the concern of this study to deal with such cases but they are mentioned here to show that the derivational morpheme is not necessarily a suffix.

Suffixation of derivational morphemes to a simple verb root introduces a variety of interpretations. Examples will be given below. It is important to note that although these are several semantic interpretations to a single derived form most of the interpretations can be represented by one underlying meaning which can then be interpreted in the different contexts. The role of interpretation is left to the semantic component of the grammar where semantic interpretation rules operate in the usual way as, for example, those discussed by Katz and Fodor (1963). The different semantic readings can, therefore, be unified into one basic meaning. This fact is further enhanced by the fact that in most of the cases shown most of the several semantic readings can be found for every verb and the only distinction that can be made is determined by the context of occurrence for that particular verb. For this reason, I will, therefore, give the basic meaning of each form and what possible interpretation can be determined by context.

Before I discuss the **affixes** and their semantic interpretation I would like to say a word on the division I made earlier on the verbal roots. Following Dimmendaal's (1980)

division in Turkana, I decided that the verbs in Ateso can also be divided into three major categories. Each verbal root is classified according to the basic morpho-syntactic features associated with it. It is either a punctual verb, a durative verb, or a stative verb. A punctual verb is one where an action is momentary. For example, the verbs aI - baD 'to slap', ai - pet 'to kick', and aI-kIs 'to scrape'. A durative verb is a verb where an action takes place over a period of time. Examples are: a - gwEl 'to buy', a - ipo 'to cook', ai - buk 'to pour/empty' and a - ibuga 'to beat'. The third group of verbs, that is, the stative verbs, are those which indicate a state of affairs. In Ateso they usually have to do with quality and the verbs of being and having some quality. Examples are: ai - jEn 'to know', ai - pup 'to listen/hear, understand/feel', aI - ba 'to be soaked' and aI - la 'to be clean'.

Discussions of the different derivational suffixes will be made with this division in mind. The idea is to find out if this division is relevant in the derivational processes chosen for this study.

Having given an explanation of the distinction made in the verbs we shall now have a look at individual affixes. A basic form and meaning will be given together with possible semantic interpretations.

SUFFIX /-Un/

Basic Meaning: 'Direction towards speaker'

The different semantic interpretations are as follows:

1. 'To do something so that someone/something moves in towards speaker.'

This reading is restricted basically to punctual verbs. Among the durative verbs only the verb a - ibuŋa 'to beat' fits into this category. No stative verb has this semantic reading. The semantic component interpretes, as one of the readings for punctual verbs, the above-mentioned interpretation.

2. 'To come and do something here'.

All the punctual verbs and two of the durative verbs in Appendix I can be interpreted to give the above meaning. The verb a - gweɪ 'to buy' of the durative group does not have the above-mentioned reading. There is no apparent reason for its odd behaviour. It will be treated as an exception.

3. 'To do something and bring the result here.'

Punctual verbs do not have the above semantic reading. The above reading is confined to durative verbs with the exception of the verb a - ibuŋa 'to beat'. There is no reason for this exceptional behaviour. It will again be treated as an exception.

4. 'To do something and extract towards speaker'.

Only punctual verbs display the above reading. For example, if one kicks someone/something out of a house he would be extracting that person/thing from the house. Also, if a fish is speared and taken out of the water and moved towards speaker it is said to be extracted out of its place. The meaning of extraction is usually found in contexts where there is an adverbial phrase to indicate the location from which someone/something is extracted.

5. 'To do something while coming towards speaker'

Only the verb a - ibuᵛa 'to beat' has reading 5 above. No particular features seem to give this verb the particular reading.

6. 'Direction towards speaker'

The verbs a-IcUm - Un and a - buk - Un display the reading 'direction towards speaker'. Both of these verbs are punctual verbs. No verbs in Appendix I show the reading above and belong to the durative group. But there are verbs in this group that have the particular reading. For example, the verb ai - buk 'to pour or empty' has the reading under discussion. It is not clear what should move; either the subject or the object. It can be said tentatively that transitive verbs involve movement of the Object while intransitive verbs involve movement of the Subject. The examples given above show cases where the object moves. An example where the subject moves is the verb

ai - boy 'to return'. No conclusive statements can be made in this respect.

7. 'To do something a little'.

All punctual verbs and all durative verbs have the semantic reading 'to do something a little'. The reading seems to be more generalized than most of those already discussed.

8. 'To get/begin to do something' (Inceptive)

The reading 'to get/begin to do something' is related to the reading 'to do something a little'. Both have to do with beginning to do something. They can be unified as having an inceptive reading. The notion of 'beginning to do something' is confined to stative verbs and 'to do something a little' is found in the durative and punctual verbs which are all active verbs as opposed to stative verbs. The specific reading for a particular verb form will be determined by context, and interpretation is left to the semantic component of the grammar.

9. 'To become'

When a derived verb is a stative verb the reading is either 'to get/begin to do something' or 'to become'. The readings for no. 8 and no. 9 are specific to stative verbs. The two readings correspond to sub-divisions within the stative verbs. One sub-group has the interpretation 'to get/begin to do something', and the other has the



reading 'to become'. The verbs which have to do with beginning to do something are those verbs which have to do with mental activity or perception. Examples in this group are:

a - jEn - Un 'to get/begin to know'

a - pup - un 'to " " " hear/listen, feel,  
understand.

Verbs within the stative group which have the reading 'to become' are those verbs which deal with the idea of 'being'. Examples are:

a - ba - Un 'to become soaked'

a - la - Un 'to become clean'

The reading 'to become' is, at a more abstract level, connected with 'come' in the active verbs. The notion of 'becoming' involves an involuntary motion from one state to another. We can, therefore, say that the semantic interpretations for the stative verbs are not altogether unrelated to the readings in the active verbs. The readings are indeed connected and the different contexts determine the specific interpretation. Interpretation rules will determine that when the verb involved is stative a specific reading is found. The unity of the different interpretations is important and is emphasised here.

While the different semantic readings for the above verbs are restricted sometimes to a particular group of verbs, we can say that this distinction is made when verbs

are interpreted in the semantic component. In the semantic component a particular class of verbs will be interpreted in one particular way and others in a different way. But all these verbs will go in with one basic meaning 'direction towards speaker'.

In order to emphasise the fact that there is semantic unity in the different interpretations I shall give an example of a verb which has different semantic interpretations which are only distinguished by contexts. The verb is a - IcUm 'to spear/pierce'. When the suffix /-Un/ is added to derive a - IcUm - Un, the following readings can be found:

- a) 'to spear towards speaker'

Example:

Inyekik            aicumun            akwara            lailo<sup>8</sup>.

you leave - to spear this way -the spear - this way.

"Do not throw the spear this way".

- b) 'to spear and extract someone/something towards speaker'.

Example

Aloto            ikiliok            aicumun            ibilenga<sup>9</sup>            kosamai.

they have gone - men - to spear and extract towards speaker -

ibilenga -from marsh

"The men have gone to spear and extract 'ibilenga' from marsh towards speaker".

(Here, the presence of an adverbial phrase 'kosamai' indicates location from which something is extracted.)

c) 'to spear and bring here'

Example:

Mam ijo ipedori aicumun Ekarimojongoit ne.  
no - you - you can - to spear and bring- a Karamojong here  
"You cannot spear and bring here a Karamojong."

d) 'to spear someone/something so that he/it moves towards speaker.'

Example:

Ikapa nes ikurok ijo aicumun togo!  
a cat - it is - you have failed-you- to spear so that it  
moves towards - house  
"It is only a cat you can't spear so that it moves towards  
speaker!"

From the above we can see that the verb a - IcUm - Un has several semantic interpretations. It is not by far the only verb in Ateso with this feature. Indeed most of the verbs display this phenomenon of having a basic meaning which is then interpreted differently in the contexts in which they occur.

In order to show that semantic readings for number 8 and 9 above also fit into this basic meaning I shall give two further examples.

e) Elosi esapat ngol ajenun aimar katipet.

he is going - boy - that to begin to know - counting soon  
"That boy will soon get to know counting."

f) Akoto eong da alaun.  
I want I also to become clean.  
"I also want to become clean."

Examples (e) and (f) are those with stative verbs. Earlier on I had indicated that the notion of 'beginning to do something' is connected to the notion of 'doing a little' in the punctual and durative verbs, and that 'becoming' is connected to that of 'coming' (towards speaker). The interpretation is determined by context.

From the above discussion we can see that whenever a derivation takes place using the suffix /-Un/ the meaning is regular and predictable. One basic meaning underlies all the different readings that are found in different contexts. Even the stative verbs which I had been suspicious about have fitted in quite neatly. More will be said on this in Chapter III which will deal with rule formalism.

#### SUFFIX /-ar/

Basic Meaning: 'Direction away from speaker'.

The semantic readings for the suffix /-ar/ are basically identical with those for the suffix /-Un/ except for the fact that instead of 'direction towards speaker' it is 'direction away from speaker.' I will show this relationship below in discussing the different semantic interpretations for the suffix /-ar/. The suffix /-ar/ has the following readings which correspond to those for suffix /-Un/.

1. 'To do something so that someone/something moves away from speaker.'

All punctual verbs have the above reading and only the verb a - ibuŋa from the durative group fits into this category. This is the same as for the suffix /-Un/.

2. 'To go and do something there'.

All punctual verbs and all durative verbs have the above reading when the suffix /-ar/ is introduced.

3. 'To do something and take the result there.'

Just as in the Ventive, all durative verbs show the reading indicated in(e)above. Punctual verbs do not have this reading. The verb a - ibuŋa is the only one of the durative group which is an exception in this respect.

4. 'To do something and extract away from speaker'.

The same verbs that have the reading 'to do something and extract towards speaker' are the same verbs that have the reading 'to do something and extract away from speaker.' This is because the added meaning of extraction is got from context.

5. 'To do something while going away from speaker'.

Only the verb a - ibuŋa displays the reading in 5 above. This is the same verb that has the reading 'to do something while coming towards speaker' in the ventive suffix. No apparent reason exists for this unique behaviour.

6. 'Direction away from speaker'

The same verbs that in the ventive suffix have the reading 'direction towards speaker' have here the meaning 'direction away from speaker'. They are:

- a - buk - Or 'to pour away from speaker'
- a - IcUm - ar 'to spear away from speaker'
- a - bOŋ - Or 'to return there'

Again the verb is put here to show that either the subject or the object may move. The first two verbs involve movement of object, and the last one involves movement of subject.

7. 'To complete doing something.'

The notion of 'completing doing something' by extension corresponds to the notion of 'doing something a little' and 'beginning to do something' which are found in the ventive extension. This is because the notion of 'beginning' in the ventive is the opposite of 'completing' in the Itive.

8. 'to become'

The notion of 'becoming' is common to both extensions that is Ventive and Itive. The difference is that in the ventive the speaker has some concern about the action. In the Itive it is not important what change has taken place. The speaker simply makes an observation but he is indifferent to the change.

Examples

a - kwangis	_____	a - kwangiar
to be white		to become white
a - rengis	_____	a - rengiar
to be red		to become red

It is not important to the speaker whether or not something becomes white or red as shown above. Perhaps the notion of something going away from the speaker brings about this lack of concern. If something is coming towards the speaker the chances of its affecting the speaker are higher than if it goes away from him. Such verbs might be called verbs of volition.<sup>11</sup>

From the above discussion the deictic<sup>11</sup> nature of the Ventive/Itive suffixes has been shown. I hope it has been clearly supported. The conclusion we can make here is that whenever a derivation takes place using the suffix /-ar/ the semantic readings for the derived verbs are the opposite of those for the ventive.

Just as I gave an example earlier of a verb that has different interpretations which are determined by context I will give examples of contexts, using the same verb, that show the opposite meaning to that in the ventive. The verb is again a-IcUm 'to spear/pierce'.

a-IcUm - ar 'to spear/pierce away from speaker'

The different semantic interpretations are:

- a) 'to spear/pierce away from speaker'

Example:

Olimok itelepai aicumar akwara ngin okitui.  
you tell them - boys - to spear away - spear - that to bushes  
"Tell the boys to throw the spear away into the bushes."

b) 'to spear and extract someone/something away from speaker'

Example:

Ekotosi itelepai aicumar emun kotogo.  
they want - boys - to spear and extract away from speaker-  
snake - from house.

"The boys want to spear and extract the snake away from the house."

c) to spear and take away'

Example:

Ekoto lo aicumar ekamaido.  
he wants - this guy - to spear and take away - my nut.

"This guy wants to spear and take away my nut."

d) 'to spear/pierce someone/something so that he/it  
moves away from speaker'.

Example:

Akoto eloket aicumar ikoku auj.  
he had wanted -the Karamojong - to spear so that he moves to-  
child - kraal.

"The Karamojong had wanted to spear the child so that  
he (the child) would move away from Karamojong towards the kraal."<sup>12</sup>

The discussion of the suffix /-ar/ was intended to  
show clearly how the readings for the suffix show opposite  
readings to those for the ventive. Again emphasis is on



the unity of these readings rather than multiplicity.

SUFFIX /-akIn/

Basic Meaning: 'To do something for someone'  
(benefactive)

The different semantic interpretations

1. 'To do something for someone'.

All punctual verbs and durative verbs display the reading 'to do something for someone' when the suffix /-akIn/ is used to extend a simple verb. Among the stative verbs only two verbs have the reading mentioned above. These are:

- |                |                       |
|----------------|-----------------------|
| a - jen - akIn | 'to know for someone' |
| a - pup - OkIn | 'to hear for someone' |

2. 'To do something at a place' (locative).

The same verbs that have the reading 'to do something for someone' have the reading 'to do something at a place.' Two other verbs from the stative group are added to the list: They are:

- |               |                           |
|---------------|---------------------------|
| a - ba - IkIn | 'to be soaked at a place' |
| a - la - IkIn | 'to be clean at a place'  |

This now means that all the verbs in Appendix I have both reading 1 and reading 2 above.

3. 'To do something and put the result into/onto/against someone/something' (locative)

It is the same verbs that have readings 1 and 2 above that have reading 3.

It would appear from the above discussion that the different readings are found in the same verbs. Only context determines the different readings. One basic meaning is, however, underlying the several interpretations. To further emphasise this point I will give examples of contexts that give different readings which are unified under one basic meaning. I will use same verb a - IcUm 'to spear/pierce' which has been used for the ventive and itive suffixes.

Example:

a - IcUm      →      a - IcUm - akIn  
to spear/pierce      to spear/pierce for someone

The different interpretations

- a) 'to spear/pierce for someone'

Example:

Abu eong agir aicumakin esisianakinan ikoku  
I did - I - I refuse -to spear for teacher child  
yen kepali.  
who - had stubbornness.

"I refused to spear a stubborn child on behalf of the teacher"

3. 'To do something and put the result into/onto/against someone/something' (locative)

It is the same verbs that have readings 1 and 2 above that have reading 3.

It would appear from the above discussion that the different readings are found in the same verbs. Only context determines the different readings. One basic meaning is, however, underlying the several interpretations. To further emphasise this point I will give examples of contexts that give different readings which are unified under one basic meaning. I will use same verb a - IcUm 'to spear/pierce' which has been used for the ventive and itive suffixes.

Example:

a - IcUm → a - IcUm - akIn  
to spear/pierce to spear/pierce for someone

The different interpretations

- a) 'to spear/pierce for someone'

Example:

Abu eong agir aicumakin esisianakinan ikoku  
I did - I - I refuse -to spear for teacher child  
yen kepali.  
who - had stubbornness.

"I refused to spear a stubborn child on behalf of the teacher"

b) 'to spear/pierce at a place'

Example:

Arono            aicumakin            ejakait            oreke  
it was bad - to spear at - chief            his home  
"It was bad to spear the chief at his home".

c) 'to spear something and put the result into/onto/  
against someone/something'

Example:

Iukangai    agirotto            aicumakin            emun            aipany?  
who (pl) have refused to spear and put into - snake-  
hole.  
"Who are those who have refused to spear the snake  
and put it into the hole?"

The three readings above have been shown to be unified  
and only context gives the different readings.

SUFFIX    /-akIn - [ +ATR ]/

Basic Meaning:    'To do something for each other'.

Two possible semantic readings can be observed when  
the suffix /-akIn - [ +ATR ]/ is used in a derivational  
process. These readings are as follows:

1. 'To do something to each other'

When an object is present in a derived form the  
reading is that of 'doing something to each other.' All  
punctual verbs and all durative verbs have the above reading

as one of their readings when derivation takes place. Two stative verbs also fit into this group. They are:

- a - jEn- akin 'to know each other'
- a - pup - okin 'to hear/listen to each other'

2. 'To do something for each other'

When a verb is extended using the Applicative - Reciprocal suffix and an object is mentioned, the reading of the extended form is interpreted as 'to do something for each other.' The same verbs that have reading 1 above have also reading 2.

3. 'To do something and put the result into/onto/against each other'

All punctual verbs and three of the durative verbs have the reading 'to do something and put the result into/onto/against each other.' The verb a - ipo 'to cook' which belongs to the durative group does not include reading 3 above as one of its readings when derivation takes place. Among the stative verbs only the verb ai - la 'to be clean' has the reading indicated in 3 above. The verbs ai - jEn 'to know' and ai - pup 'to listen/hear/understand/feel' of the stative group do not have this reading perhaps because they are verbs of perception. The verb ai - ba 'to be soaked' within this group also lacks the reading indicated in 3 above. This may be because the verb involves non-animate subjects. I suggest that these verbs be indicated

as one of their readings when derivation takes place. Two stative verbs also fit into this group. They are:

- a - jEn- okin 'to know each other'
- a - pup - okin 'to hear/listen to each other'

2. 'To do something for each other'

When a verb is extended using the Applicative - Reciprocal suffix and an object is mentioned, the reading of the extended form is interpreted as 'to do something for each other.' The same verbs that have reading 1 above have also reading 2.

3. 'To do something and put the result into/onto/against each other'

All punctual verbs and three of the durative verbs have the reading 'to do something and put the result into/onto/against each other.' The verb a - ipo 'to cook' which belongs to the durative group does not include reading 3 above as one of its readings when derivation takes place. Among the stative verbs only the verb aI -la 'to be clean' has the reading indicated in 3 above. The verbs ai - jEn 'to know' and ai-pup 'to listen/hear/understand/feel' of the stative group do not have this reading perhaps because they are verbs of perception. The verb aI-ba 'to be soaked' within this group also lacks the reading indicated in 3 above. This may be because the verb involves non-animate subjects. I suggest that these verbs be indicated

with certain markers to exclude them from having this particular reading.

The outcome of the Applicative-Reciprocal suffix is similar to that of other suffixes discussed earlier. The derivational processes are regular and predictable. The meaning is one but there are different semantic interpretations which are determined by context. Generalisations can, therefore, be made even when there are exceptions.

SUFFIX /-Ia/

Basic Meaning: 'To do something with an instrument'.

There are two semantic readings for the instrumental suffix, one being an instrumental and the other causal. But at a more abstract level reason can be considered a kind of instrument. Therefore the meaning is one and the differing interpretations are only superficial features. The different contexts show the different readings.

For the examples taken for this study all the verbs can be extended using the suffix /-Ia/. I will give examples, again using the verb a-IcUm 'to spear/pierce', to show the semantic unity just discussed. The different semantic interpretations are as follows:

a) 'To do something with'

Example

Aso ekukwai lo aicumia akongu ketoori.  
have - a thorn - this - to spear/pierce with -eye- of kite  
"Here is a thorn with which to pierce the kite's eye."

b) 'To do something because of'

Example

Kanukinyo            ikotor            ijo    aicumia            nes?  
for what reason- you want - you - to pierce him/it.  
"Why do you want to pierce him/it?"

From the examples chosen for this study the instrumental suffix has been found to be productive. We shall say more on this in Chapter III which is dealing with productivity.

While this chapter dealt mainly with the semantic content of the derivational morphemes and the derived forms, it has also given us an idea of the distribution of the different meanings and derivations in Ateso. The next chapter will give more detail on the nature of derivational processes, that is productivity, subregularity, and lexical rules. It is also in that chapter that percentage figures will be presented to show degrees of productivity.



FOOTNOTES

4. The term Ventive has been borrowed from Dimmendaal 1980 on the work done on Turkana which is a language within the same family as Ateso, that is, Eastern Nilotic.
5. The term Itive is also borrowed from Dimmendaal 1981, an unpublished paper, again used in the study of Turkana.
6. Vowel lengthening here is caused by the presence of two back high vowels /U/ in the root. The same process is seen in, for example, a-ijuju-uun 'to sack towards speaker', a -ibubu - uun 'to knock towards speaker'.
7. In most of the cases in Ateso a particular meaning is conveyed in a number of dis-joined morphemes. This is the case here.
8. ibilenga are a kind of mudfish that are "fished" by spearing and extracting them from the mud.
9. Verbs of volition are those verbs that normally show a permanent state but can voluntarily show a change of state when some artificial process takes place. For example, a black person can become white through painting himself with chalk.
10. Deictic here refers to words whose references are determined by the context of their occurrence e.g. come and go; yesterday, today and tomorrow; here and there. These words usually have opposite meanings.
11. "Eloket" is a derogatory name for a Karamojong, a person from Karamoja district in N. W. Uganda who is a native speaker of Ngakarimojong language.

## CHAPTER III

### 3.1 Productivity, Subregularity and Lexical Rules

While the preceding chapter dealt with the semantic content of derivational morphemes and derived verbs in Ateso, this chapter is mainly concerned with the following areas:

1. a specific discussion of the nature of subregularities and degrees of productivity that exist in the derivations.
2. the nature of lexical rules
3. attempts at formulating lexical redundancy as well as lexical derivational rules to account for the processes that are possible in Ateso.

Exceptions, idiosyncracies, and irregularities are a common feature of this kind of study. In order, therefore, to capture significant generalisations we need to look closely for specific subregularities. What is interesting is the fact that even within exceptions there may be degrees of subregularities until we reach a stage when it is no longer possible to accept a certain form. In this case it is recorded as unattestable, in which case it is marked with an asterisk as is shown in the Appendix. With this in mind we can, given a fairly productive process, determine the degree of deviation from the norm.

Since there are often problems of terminology in any discussion which lead to misunderstanding and disagreement, I will discuss what I mean by the terms I have chosen to use, giving examples from the study.

In order to determine the status of the particular formation (lexical or productive) I will use the following criteria:

1. Meaning.

If the combination of the meaning of a stem plus the meaning of a derivational affix results in an entirely predictable derived form, then the process is regular and productive.

2. Ability of a suffix to combine with any verb root of a predictable type or containing a particular feature.

3. Phonological shape of the derived form.

Productive processes tend to be constant and if they have any allomorphs, these are predictable in some way.

With the above points in mind I will now look into the notions of productivity, subregularity and lexical rules in the derivational processes in Ateso.

### Regularity

In this study the term 'regularity' will refer to those cases of derivation where one can easily predict the correct form of the derived verb after derivational rules have applied. That means, for example, that given a simple verbal root and a suffix /Un/ we would expect the resulting derived verb to be well-formed and to have the meaning 'direction towards speaker'. If the suffix is /-ar/, then the resulting derived form is expected to refer to 'direction away from speaker.' As can be seen in

Appendix II, cases like a - buk - un 'to pour towards speaker' and a - buk - Or 'to pur away from speaker' are regular, predictable and easily accounted for by a general rule.

Most of the verbs in this study have been shown to have some kind of regularity in their derivation (semantic, syntactic and phonological). Each of the suffixes has a basic meaning which is underlying. The derived forms may have different semantic interpretations but this is a feature of the semantic component where there are different but still regular interpretation rules. In certain contexts the derived forms are interpreted in a particular way. The interpretation rules operate as discussed by Katz and Fodor (1963).

As was seen in Chapter II the derivational morphemes in this study have one basic meaning which is interpreted in several ways in different contexts. Since the different interpretations are predictable and can be unified the derivational processes can be said to be regular and generalisations can be made even when apparent exceptions exist. No separate rules are necessary for each semantic reading. Where derivation does not take place the cases are treated as exceptions and are therefore underived. If the form or meaning is not predictable the cases are treated as related to the regular productive processes but there is no derivational relationship between them.

### Subregularity

The term 'subregularity' refers to those cases where derivation is unpredictable (semantically, syntactically and morphologically). Stative verbs, which seem to show a good amount of unpredictability, when looked at closely often turn out to have some sub-regularity. For example, the verbs of perception within the stative group give the reading 'to get/begin to do something' and others 'to become'. Those with the reading 'to become' are those verbs which deal with the notion of 'being'. It is clear from the above that there are sub-groups within the major group which behave in a particular way. We can, therefore, show this sub-regularity as follows:

#### Verbs of perception

- |              |  |
|--------------|--|
| a - jān - Un | 'to get/begin to know'                 |
| a - pup - un | 'to get/begin to hear/understand/feel' |

#### Verbs of being

- |             |                    |
|-------------|--------------------|
| a - ba - Un | 'to become soaked' |
| a - la - Un | 'to become clean'  |

Rules will be written later to show this sub-regularity.

Although these sub-groups have a particular semantic reading these readings can be unified as being inceptive. The two groups have to do with the notion of 'beginning to do something.' And this, in turn, is related to the reading in the punctual and durative verbs in that one of the readings in those groups is 'to do something a little'

which has the notion of 'beginning to do something' at an abstract level. This will be further discussed in section 3.2 where specific rules will be written for the different derivational processes.

### Productivity

The term 'productivity' refers to the ability of morphemes to be added regularly to any verb of a particular type with a predictable meaning. Productivity is often equated with regularity because derivations that are regular are usually those that are productive. I have separated these two for purposes of clarity. When I talk of productivity I am concerned with finding out whether any suffix can be affixed to any verb root to derive a complex verb.

In Chapter I, I said that one of my tasks in this study was to find the degrees of productivity. In order to do this I proposed that I would use percentage figures. In this chapter I am going to show these percentage figures. In order to calculate the percentages I randomly picked 25 verbs belonging to the category of punctual verbs, 50 verbs belonging to the category of durative verbs and 25 verbs for the stative group. I had initially intended to use 50 verbs for each category, but in the process of picking these verbs I discovered that a majority of the verbs in Ateso are durative. I could hardly arrive at 25 verbs for the punctual and stative groups. So I changed my figures in order to reflect the proportion of distribution of these verbs in Ateso.

The findings I made are as follows:

1. SUFFIX /-Un/

Degree of productivity

<u>Punctual Verbs</u>	<u>Durative Verbs</u>	<u>Stative Verbs</u>
100%	100%	40%

2. SUFFIX /-ar/

Degree of productivity

<u>Punctual verbs</u>	<u>Durative Verbs</u>	<u>Stative verbs</u>
100%	90%	28%

3. SUFFIX /-akIn/

Degree of productivity

<u>Punctual verbs</u>	<u>Durative verbs</u>	<u>Stative verbs</u>
100%	94%	28%

4. SUFFIX /-akIn - [+ATR]/

<u>Punctual Verbs</u>	<u>Durative Verbs</u>	<u>Stative Verbs</u>
100%	94%	36%

5. SUFFIX /-Ia/

Degree of productivity

<u>Punctual Verbs</u>	<u>Durative Verbs</u>	<u>Stative Verbs</u>
100%	100%	48%

With the data given in Appendix V it was discovered that the suffix /-la/ was very productive even with stative verbs. When more verbs were included for the calculation of percentages, it was discovered that the degree of productivity was much lower than expected, as is shown in the figures above. This may be caused by the fact that there are other features within these verbs which affect the derivation. For example, the suffix /-Un/ acquires the feature [+inceptive], which is the controlling factor. Verbs with this feature cause the high figures; they are mainly the ones that undergo derivation. For the suffix /-akIn- [+ATR]/ the feature [volitional] seems to cause the high figures. In these cases the verbs that can change state voluntarily actually help to boost the figure. For example, a - kwaŋis 'to become white' is a state which is normally permanent, so to say. But a black man, for example, can intentionally change his state of being black to white by painting himself. This will be a volitional change of state. Quite a number of verbs within the stative group show this phenomenon. So the derivational rule seems to be sensitive to the feature volitional rather than just 'stative'. The feature [volitional] is, of course, subsumed in the feature [stative].

For the suffix /-la/ it is not so easy to find a feature that the rule will be sensitive to. No specific feature can be said to unify those verbs which undergo derivation as opposed to those which don't because most of the verbs within the stative group are those of 'being'. Some undergo derivation,



others do not for no apparent good reason.

The percentage figures also show a high productivity for the punctual and durative verbs. The figures are all above 90%. For the punctual verbs all the figures were 100%. This was also the case with some of the durative verbs. What is significant in this discussion is the fact that for the two groups of verbs - punctual and durative - the figures are above 90% for all the suffixes. This shows that the derivational processes discussed are very productive in Ateso.

I had also hypothesised in Chapter 1 that the division between punctual, durative and stative verbs would affect the degree of productivity. I have found that the division between punctual and durative verbs is not significant for productivity: at least for the five suffixes which have been discussed in this study. But for meaning some distinction must be made since some semantic interpretations are only restricted to either punctual verbs or durative verbs. These particular cases are few and can be accounted for by allowing another interpretation rule in the semantic component to operate so as to give particular readings. This is separate from the regular interpretation rules for the other cases which apply to both punctual and durative verbs. Since morphological rules and semantic rules are linked, the semantic rules always interpret correctly a given set of morphological rules in given contexts when the derivations are regular and predictable.

Since punctual and durative verbs behave generally in

the same way, they can henceforth be talked of as active verbs without necessarily distinguishing between punctual and durative verbs. We can say at this stage that the only significant distinction in Ateso verbs is between punctual/durative, which are now referred to as active and stative verbs. Stative verbs show significantly low degrees of productivity, all of them below 50%. I would, therefore, make the claim that derivational rules for the suffixes discussed are sensitive to the feature 'stative' or some feature within this category.

In terms of productivity, then, we can say that the derivational processes discussed are productive but the rules are sensitive to the feature 'stative'. For those verbs which undergo derivation the meaning is predictable within certain sub-groups. Others that display vague and unpredictable meanings are treated as cases that are related to the simple verbs but are not derived from them.

Another of my hypotheses in Chapter I was that the division of the verbs in Ateso into two major morphological classes, that is, the O-class and I- class, would have some effect on the degree of productivity has been invalidated. As the Appendix shows those verbs that have /-i-/ in the initial position of the root fall into the I-class and those without it belong to the O-class. So far this division has not been found to cause any significant problem. The percentage figures are for both classes. The derivations have, therefore, been shown to cut across

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these morphological classes.

With the derivational process itself, two specific problems may be pointed out:

1. A derived form may have lost the root on which it is based, that is, the simple verb from which it was derived.
2. The semantic contribution of an extension is hard to define in forms where there is no simple verb form upon which it was derived.

Examples<sup>12</sup>

1. Verbs with suffix /-Un/

adaun	-	to finish
aideun	-	to leave something behind as a left-over
aidoun	-	to give birth
adumun	-	to find
aikwarun	-	to revive
amameun	-	to be absent, be lacking
aiyuun	-	to believe, agree, accept.

b. Verbs with Suffix /-ar/

aibiror	-	to fall, fail
acalar	-	to melt, dissolve
ailor	-	to faint
airar	-	to hear/understand
alakar	-	to be merry, rejoice
aluwor	-	to change, transform, become
amudiaar	-	to destroy in great numbers

- angoliaar - to look  
apedor - to be able, capable, competent, possible  
aisilar - to repent  
atakar - to gallop away

c. Verbs with Suffix /-akIn/

- aiguikin - to stumble  
ainakin - to give  
aijaikin - to hand to  
alimokin - to tell, inform, declare  
amasikin - to rust, become stained  
anaikin - to get used to  
aingarakin - to aid, assist, help

d. Verbs with suffix /-akIn - [+ATR]/

- abuonokin - to hesitate  
aidomakin - to dip oneself into  
aimurokin - to forget  
angirikin - to endure, bear  
aireikin - to look into

e. Verbs with suffix /-Ia/

- aidia - to draw water in small quantities  
aisia - to walk in rags

Synchronically, these verbs have no simple verbs from which they could be derived. Diachronically, they may have been derived from simple forms but these forms have since been lost. The above verbs should, therefore, be

regarded as lexicalised forms, that is, they are entered in the lexicon as separate items which do not participate in derivational processes. These forms are thus, not subject to lexical derivational rules. But they are subject to lexical redundancy rules to show that they contain morphemes that are otherwise productive and regular.

Within the above groups of verbs there are also verbs that are morphologically and semantically related. These verbs should not just be left in the lexicon without indicating that they are related. Examples are shown below.

- 1a. With suffix /-Un/  
adUmUn - to find here
- b. With suffix /-ar/  
adUmar - to find there
- c. With suffix /-akIn/  
adUmakIn - to find for someone
- d. With suffix /akIn - [+ATR]/  
adUmakin - to find for each other
- 2a. With suffix /-Un/  
aibirun - to fall here
- b. With suffix /-ar/  
aibiror - to fall there
- c. With suffix /-akIn/  
aibirokin<sup>13</sup> - to fall onto someone

3a. With suffix /-Un/

aijesun - to slide this way

b. With suffix /-ar/

aijEsar - to slide that way

c. With suffix /a-kIn/

aijEsakin<sup>14</sup> - to slide onto someone

d. With suffix /-akIn - [+ATR]/

aijesakin - to slide onto each other

Although these groups of verbs are also lexicalised items they are so related morphologically, and are so semantically predictable that they should be marked in the lexicon with some diachritic feature to indicate that they are related. I am not certain how this should be done but this is an attempt to show that there is a relationship.

### 3.2. Lexical Derivational and Redundancy Rules

In order to capture regularities and redundancies in various derivational processes, some rules are utilised. For the generation of potential verbs lexical derivational rules are formulated. Before these rules apply simple roots are listed in the lexicon as underived basic forms. These roots are also listed in their basic form with abstract features indicating particular selectional restrictions associated with them. For example, they may be shown as being 'stative' and, therefore, not taking certain rules.

The lexical rules which derive other verbs from simple

verbs in Ateso can be shown to have a morphological derivational feature and a semantic feature accompanying them. The morphological and semantic rules are closely related.

The lexicon is then designed in such a way that it takes care of both regular and ad-hoc verbal forms. No cases will be shown to be absolute exceptions. In order to capture the redundancies discussed above lexical derivational rules are used. For the unproductive irregular processes lexical redundancy rules are formulated. Minor rules may be used to capture the idiosyncratic and irregular nature of some derivations.

In order for a lexical rule to apply the following information should be set correctly:

- a) the lexical morphemes must be fully specified in terms of their categorial and selectional features. These verbs must<sup>be</sup> specified to indicate that they are stative because lexical rules are sensitive to this feature or some feature within this group.
- b) Lexical rules will operate on fully specified forms.
- c. More productive processes are distinguishable from less productive ones by use of percentages within the rules themselves.



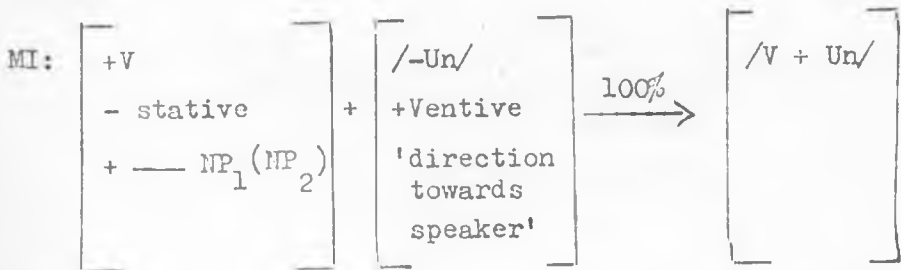
Formulation of some Lexical Derivational and Redundancy

Rules for Ateso Verbal Forms

A lexical entry makes use of the following information:

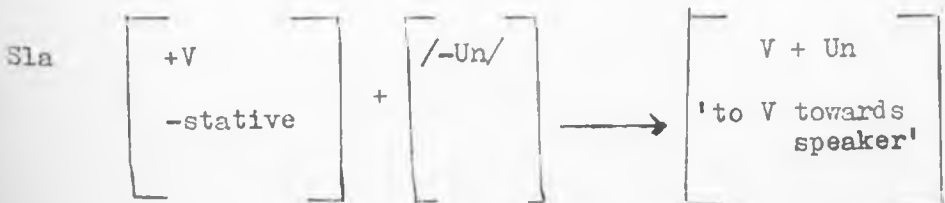
Phonological	representation
Syntactic	features
Semantic	features
Productivity	percentages

Some of the morphological rules are stated in MI - below. Each of the rules refers to each of the affixes discussed. Accompanying these morphological rules are semantic Interpretation rules.



The morphological rule MI says that any non-stative verb can have the suffix /-Un/ added to it to derive a complex verb that includes the suffix as part of its component. This verb will occur before an NP or two NP's, but the NP<sub>2</sub> is optional. The percentage figures near the arrow indicate the degree of productivity for the derivational process.

The accompanying semantic rules are as follows:



$$S1\ b \left[ \begin{array}{c} + V \end{array} \right] + \left[ \begin{array}{c} /-Un/ \end{array} \right] \longrightarrow \left[ \begin{array}{c} V + Un \\ \text{'to begin to V'} \end{array} \right]$$

The Semantic rule S1a says that when the suffix /-Un/ is utilised in the derivation fo a complex verb from a simple non-stative verb the result has a semantic meaning 'towards speaker'. In S1 b we understand that any verb can be extended using the suffix /-Un/ to give a complex verb that has an inceptive meaning. The two rules take care of the relationship between the stative verbs and the active verbs.

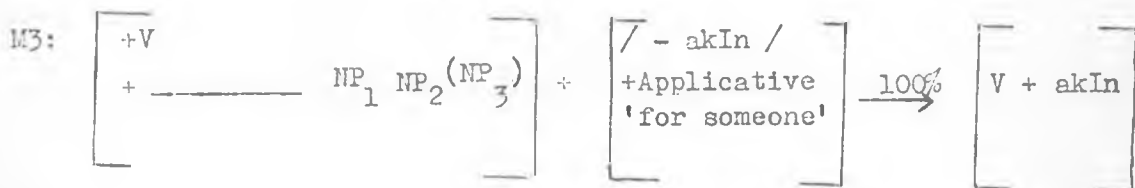
$$M2: \left[ \begin{array}{c} + V \\ - \text{stative} \\ + \text{---} NP_1 \text{ (} NP_2 \text{)} \end{array} \right] \longrightarrow \left[ \begin{array}{c} /-ar/ \\ + \text{Itive} \\ \text{'direction} \\ \text{away from} \\ \text{speaker'} \end{array} \right] \xrightarrow{100\%} \left[ \begin{array}{c} V + ar \end{array} \right]$$

The morphological rule M2 says that any non-stative verb can be extended using the suffix /-ar/ to derive a complex verb that include /-ar/ as part of the verb. Again, the percentage show productivity. The accompanying semantic rules are as follows:

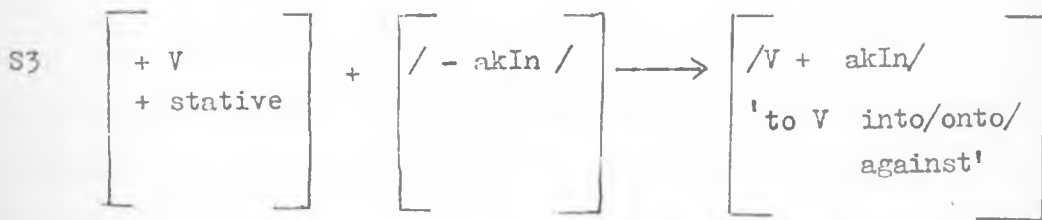
$$S2a: \left[ \begin{array}{c} + V \\ -\text{stative} \end{array} \right] + \left[ \begin{array}{c} /-ar/ \end{array} \right] \longrightarrow \left[ \begin{array}{c} V + ar \\ \text{'to complete} \\ \text{V-ing'} \end{array} \right]$$



Semantic rule S 2a above accounts for the non-stative verbs that have a reading 'to complete doing something' which is not related to the 'direction away from speaker' meaning which is found in the other regular and predictable cases. The semantic rule S2b accounts for the stative verbs that show voluntary change of state to give the reading 'to become' but with no commitment on the part of the speaker.

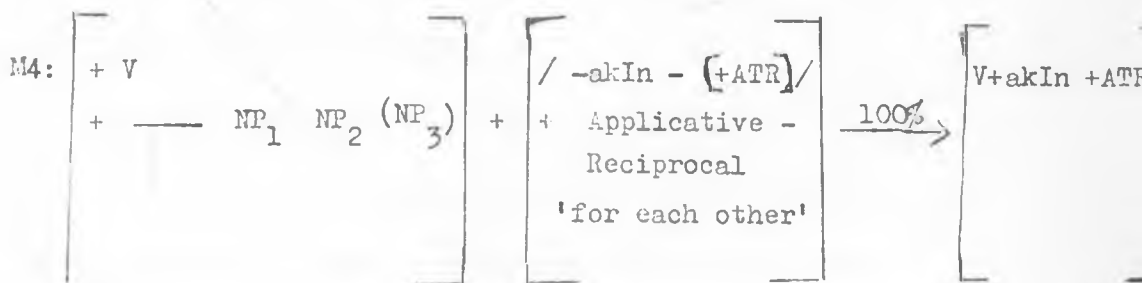


The M3 above says that any verb may be extended using suffix /-akIn) to derive a complex verb. The derived verb occurs before three NP'S \_\_\_ the subject, direct object and indirect object. The NP<sub>3</sub> is optional. The accompanying semantic rules are as follows:

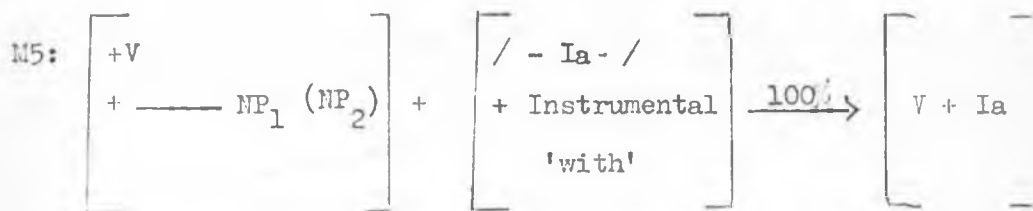


S3 above says that stative verbs when extended do not give the reading 'to do something and put the result into/onto/against.' The other readings are common to all verbs and

no separate semantic rule is necessary.



Morphological rule M4 above is interpreted as saying that any verb can be extended using the Applicative-Reciprocal suffix. No separate semantic rule is necessary for this M-rule because the rule takes care of all the interpretations. When  $NP_3$  is absent we get the reading 'to each other' and when it is present we get 'for each other'.



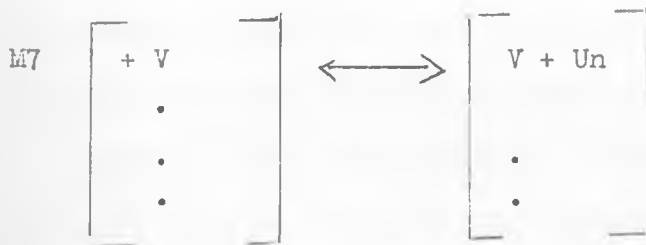
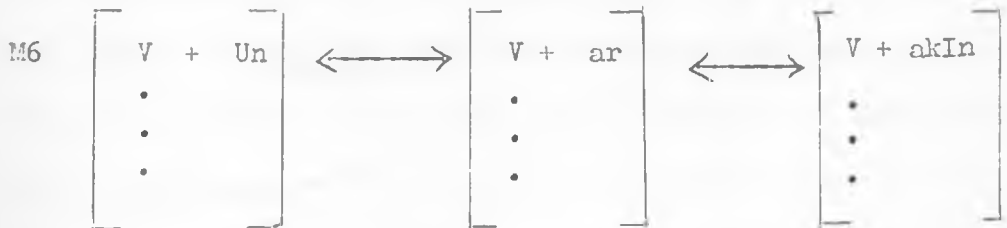
The above morphological rule allows any verb to be extended using suffix  $/-Ia/$ . No separate semantic rule is necessary to interpret this rule.

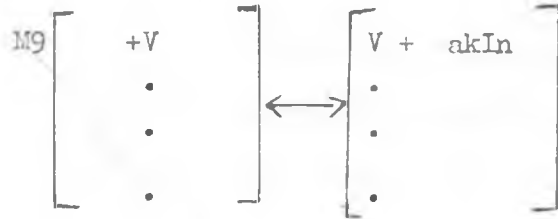
It should be observed that the above semantic rules operate at constituent levels, that is, what has been indicated is lexical semantics and not sentence semantics.

The above lexical derivational rules account for the productive processes. They account for the fact that a native speaker considers the processes to be productive and can use the rules to coin new words. In such cases

the derived words are not listed in the lexicon separately; only the underived words and the suffixes need be listed, and these have access to the LDRs.

In order to capture the fact that a speaker - hearer knows that two or more words are related but are not derived from each other, a lexical redundancy rule is employed. Below are examples of LRR's in Ateso. They are of two types. The first shows a relationship between several words that do not have a simple verb from which they can be derived synchronically. The others show that a simple verb may be related to a form that has a productive suffix attached to it but that form is not derived from the simple form.





M6 above shows a relationship between the following words: adumun 'to find here', adumar 'to find there', and adumakin 'to find for someone.' They have no base form upon which they are derived although they contain productive suffixes.

M7 shows a relationship between, say, aibir 'to throw something at', and aibiror 'to fall' or 'cause to fall'. M8 is an example of a relationship between aibong 'to return' and abongokin 'to answer, repeat'. M9 shows the relationship between the words aced 'to stalk' (walk stealthily) and acedun 'to pick something gracefully'. M7 - M9 show that a simple verb may be related to a form that has a productive suffix but there is no derivational relationship between the words. Only a redundancy relationship exists. The two-way arrow shows this redundancy relationship as opposed to one-way arrow for a derivational relationship.

Since I used several native speakers including myself for this study, I would like to claim that the psychological reality of these derivational and redundancy processes has been tested and found to be valid for the native speakers chosen for this study. I would like to claim that this is enough for my purposes.

Now that I have tried to formulate rules for Ateso based on Mould's model, I can make a statement on two further

hypotheses I had put forward in Chapter I. One of them was that while the model worked for nominalisation processes, it may not work well with verbal derivations. The other hypothesis was that with Luganda the model was seen to account adequately for the facts of derivational relationships, but for Ateso which is unrelated to Luganda, problems might arise that cannot be adequately taken care of. I can now say with confidence that the two hypotheses have been invalidated since the model has been shown to work just as well for Ateso as for Luganda, and just as well for verbal derivational processes as for nominalisation. The model has accounted well for both productive and non-productive processes.

FOOTNOTES

12. Examples in this section are orthographic rather than phonetic.



## CHAPTER IV

### CONCLUSION

#### 4.1 Remarks

In Chapter I I set out a number of hypotheses and my task was to test these hypotheses. One of my hypotheses was that since every verb in Ateso belongs to either of two morphological classes, i.e. O-class and I- class, the shape of a specific verbal affix may depend on the morphological class to which the verbal root belongs. I have found that verbal derivational processes in Ateso cut across these morphological classes. Phonological alternations that show the shape of the specific verbal affixes also cut across these classes. The derivational processes are, therefore, not restricted by the division of the verbs into morphological classes.

The second hypothesis in Chapter I was that the grouping of verbs in Ateso into three groups according to the basic morpho-syntactic features associated with them, that is, punctual, durative, and stative, would affect the degree of productivity of the different derivational processes. It has been found that stative verbs behave differently from either the punctual or the durative. Some derivational rules have been found to be sensitive to the feature [stative] or some feature within this group. Although semantically there are some differences between punctual and durative verbs in that some readings are restricted to one of these groups, the cases where this division is relevant are few and the particular readings have been taken care of by allowing a

separate semantic interpretation rule to operate for these cases. In the other derivations there is no significant division between punctual and durative verbs. Thus verbs can be talked of largely as active (punctual or durative) verbs as opposed to stative verbs.

I also put forward a third hypothesis in Chapter I. The hypothesis was that although the theoretical framework chosen for this study has been shown to work for nominalisation processes the application of this framework to verbal derivational processes may not work so well. It has been shown that the framework works just as well with nominalisation processes as for verbal derivational processes.

The fourth of my hypotheses was that whereas the model chosen for this study has been shown to work for Indo-European and Bantu languages, that it would apply just as well to an Eastern Nilotic language like Ateso. As has been seen in the previous chapters, this hypothesis has been validated. The model has been shown to take care of both regular and ad-hoc facts in Ateso verbal derivation. The use of percentage figures, which is a modification to the model, gives a particularly clear idea of how far these processes are productive. Since, for example, a look at a few verbs may give an erroneous picture of the productive processes we have been able to discover that the instrumental extension is not as productive generally as thought earlier using a few examples and with no percentage figures.

The notion of the psychological reality of the

derivational processes has also been gone into in order to show that the native speaker knows which processes are most productive and which are altogether unproductive. This has been done by separating rules, that is, lexical derivational rules and lexical redundancy rules. Relationships between lexical items have been shown in a systematic way.

The work done by Hilders and Lawrence (1957) was done by non-linguists who were interested in giving some guidelines to other European newcomers to Teso District. No linguist had taken up the study of the language, and no linguist particularly of the generative school had examined the language. The study I have made is the first attempt to look at Ateso from a generative viewpoint. Attempts have been made to account for the intuitions of native speakers of the language. By discussing the lexical relationships among lexical items I have tried to account for the native speaker's competence. This is a departure from Hilders and Lawrence's approach of simply listing the processes that are possible and listing a few exceptions. This work has tried to give reasons, as much as possible, for the "odd" behaviour of some derivational processes.

#### 4.2. Areas of Further Research

What has been done in this study shows only a small part of the verbal derivational processes in Ateso. The verbal system in Ateso is very complex and there is yet a lot of work to be done in this area. While this study has been

concerned mainly with five extensions there are several other extensions that need to be examined. For example, we have the habitual extension, which makes use of the suffix /-enen/, the Causative which involves the infix t(G)V, where (G) is an optional /w/ or /y/, and V any of the 9 vowels in the language, the transitive - Repetitive which is Root - V - Root, and the Intransitive Repetitive which is Root - V- Root - V - toi. There are morphophonemic as well as semantic alternations in these processes. It would be a contribution to Ateso if these extensions could be studied with a view to comparing these extensions with what has already been done in this study, and using the same framework.

Derivational processes in Ateso also extend beyond the verbal system. There are also derivational processes that involve adjectives, nouns, and verbs. For example, Ateso has ways of deriving verbs from adjectives, nouns from verbs, and nouns from adjectives. Examples are:

1. Verb from adjectives

- a. Erey '(it is) red' → are yiar 'to become red'  
b. epol '(he/it is) big' → apoloor 'to become big'/  
'to grow'

2. Noun from Verb

- a. aipo 'to cook' → eepoon 'a cook'  
b. amej 'to hunt' → aamejan 'a hunter'

3. Noun from adjective

- a. ejok '(it is) good' → anjokan 'a good one'  
b. ekuriana '(he/it is) afraid' → ekuriai 'a coward'

So far nothing has been done in areas like the above. It would be of interest and relevance to derivational morphology to examine further the different possibilities and write explicit rules to account for these derivations.

In this study we have also found that there is some evidence for historical explanations for some of the processes. This was particularly evident in the phonological alternations where there were instances like mid-vowel assimilation which seem to have an explanation in diachronic rather than synchronic changes. A comparative study of related languages (e.g. Turkana, Maasai) should give further historical evidence for these changes. It is also possible that there have been some semantic shifts in the semantic content of the derivational affixes and derived forms. A comparative study would perhaps confirm our assumptions so far.

I would like finally, to say that problems have been met in carrying out this study, as is expected. Tentative solutions and observations have been made in some situations but more concrete ways of solving the problems may be sought. For example, use of percentages may not be the best way to account for degrees of productivity, but so far it has worked to help illustrate the productivity relationships. It is also not clear how the redundancy relationship between lexicalised items will be specifically marked in the lexicon. Translation has its own problems since quite often there are no equivalents in other languages. An attempt has been made to give the nearest possible translations.

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APPENDIX I

SUFFIX /-Un/

A. DERIVATIONS WITH PUNCTUAL VERBS

Infinitive + V root	Infinitive + V root + Suffix /-Un/
<p>1. <u>a - Ibaṣ</u> to slap</p>	<p><u>a - Ibaṣ - Un</u></p> <p>a) to slap someone/something so that he/it moves towards speaker.  b) to slap someone/something and extract towards speaker  c) to slap a little</p>
<p>2. <u>ai - pet</u> to kick</p>	<p><u>a - pet - un</u></p> <p>a) to kick towards speaker  b) to come and kick someone/something here.  c) to kick and extract  d) to kick a little</p>
<p>3. <u>a - Ikiṣ</u> to scrape</p>	<p><u>a - Ikiṣ - Un</u></p> <p>a) to scrape towards speaker  b) to come and scrape here  c) to scrape something and bring it here  d) to scrape a little</p>



EXAMPLES WITH PUNCTUAL VERBS

Derived Verb	Examples <sup>13</sup>
<p>1. <u>a - Ibap - Un</u></p>	<p>a) Akoto okello aibapun ikoini obalasa  he had wanted - Okello - to slap towards - child - to verandah  "Okello had wanted to slap the child so that he would move  towards the verandah."<sup>14</sup></p> <p>b) Alosi eong ngin aibapun kokai.  I am going - I - that woman - to slap and extract- from house  "I am going to slap and extract that woman/girl from the house.</p> <p>c) Ijo da yenice aibapun ekokolan.  you - also - the other one - to slap a little - thief  "You and everyone else should slap the thief a little".</p>
<p><u>a - pet - un</u></p>	<p>a) Ebe teni mam to epedori apetun emopiira lailo?  that - surely- no - this guy - he can - to kick towards - ball-  this way  "Is it true that this guy cannot kick the ball this way?"</p>

Derived Verb	Examples
	<p>b) Orekon          abuni          eong          apetun          aacudan          ngol. home your - I will come - I -          to kick          witch          that "It is at your home that I will come to kick that witch."</p> <p>c) Okeruni          eroko          eong          kebuno          apetun          ijo          katukot. you run here - before- I - I come to kick and extract -you - from classroom. "Run here before I come to kick and extract you from the classroom."</p> <p>d) Arai          kelot          nginituan          apetun          ekokolan          eyarete          cut. If - he goes - every person - to kick a little - thief- they will kill- completely "If everyone goes to kick the thief a little they will kill him."</p>

Derived Verb	Examples
<p>3. <u>a - IkIs - Un</u></p>	<p>a) Ikoto      ijo      aikisun      asinge      ne? you want - you - to scrape here - sand - here "Do you want to scrape sand in this direction?"</p> <p>b) Ibuni      ijo      moi      lailo      aikisun      amujaj? you will come - you - tomorrow - this way - to scrape here - sisal "Will you come here tomorrow to scrape sisal?"</p> <p>c) Ejai      ngolituan      aikisun      amujaj      osabiti      ngol. he/it is - every man -to scrape and bring - sisal- at week - that "Everyone has to scrape and bring sisal here next week."</p> <p>d) Yesi      kere      edolit      aikisun      amujaj      eroko keloto ape. you (pl)- all - it is fit- to scrape a little - sisal - before- going-to lie "All of you should scrape a little sisal before going to bed".</p>

B. DERIVATIONS WITH DURATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix - Un
1. <u>a - gwEl</u> to buy	<u>a - gwEl - Un</u> a) to buy and bring towards speaker b) to come and buy something here. c) to buy little.
2. <u>a - ipo</u> to cook	<u>a - ipo - un</u> a) to cook and bring towards speaker b) to come and cook here. c) to cook a little.
3. <u>ai - buk</u>	<u>a - buk - Un</u> a) to pour towards speaker b) to come and pour something here. c) to pour a little.
4. <u>a - ibuŋa</u> to beat	<u>a - ibuŋa - Un</u> a) to beat while coming towards speaker b) to come and beat someone/something c) to beat someone/something a little.

EXAMPLES WITH DURATIVE VERBS

Derived Verb	Examples
1. <u>a - gwel - Un</u>	a) Ingai elosi agwelun emaido kosokooni? who - will go - to buy and bring - nuts - from market "Who will go to buy and bring nuts from the market?"
	b) Abuni eong agwelun emaido ne. I will come - I - to buy here nuts here. "I will come to buy nuts here".
	c) Edolit ya agwelun emaido eroko edou kebuno it is fit - that woman - to buy a little - nuts- before - rain comes "It is good for the woman to buy some nuts before rain comes."
2. <u>a - ipo - un</u>	a) Enyounitos apesur kere aipoun inyammat ne. they intend - girls - all - to cook and bring - food - here. " All the girls are intending to cook and bring here food."

Derived Verb	Examples
3. <u>a - buk - un</u>	b) opotu aipoun inyamat oidukuru. you come to cook here - Food in the hut "Come to cook food here in the hut."
	c) Ekoto lolo aberu na aipoun eboo. she wants - today - woman - this - to cook a little Eboo. <sup>15</sup> "This woman wants to cook some 'eboo' today."
	a) Ikoitu yen, inyekik abukun akipi opejok. child - this one, you leave - to pour towards - water- to visitors "You child, do not pour water towards the visitors". <sup>16</sup>
	b) Ebunit aberu abukun akipi kamot. she has come - wife - to pour out - water from pot "The wife has come to pour out water from the pot".

Derived Verb	Examples
4. <u>a - ibuŋa - Un</u>	<p>c) Egirit toto yesi abukun akiŋi cut. she has refused- mother- you -to pour a little -water - completely "Mother has totally refused you to pour any water."</p> <p>a) Atamit bian okilenika aibuŋaun eong lailo. he tried - yesterday- husband my- to beat while coming - I - this way. "My husband yesterday tried to beat me while coming this way."</p> <p>b) Osomero nepene abuni eong aibuŋaun ngol. at school- here - I will come - I - to beat that one "It is right here at school that I will beat that guy."</p> <p>c) Man edolit esisianakinan aibuŋaun ikoku cut "no - it is fit - teacher - to beat a little -child completely "It is not good for a teacher to beat a child at all."</p>

Infinitive + V root	
1. <u>ai - jEn</u> to     know	a)
2. <u>ai - pup</u> to hear/listen/understand/feel	a)
3. <u>aI - ba</u> to     be soaked	a)
4. <u>aI - la</u> to     be clean	a)



C. DERIVATIONS WITH STATIVE VERBS

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Infinitive + V root + suffix /-Un/

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a - jeh - Un

to know get/to begin to - 'to get/begin to know'

a - nuu - un

to hear ..... get/begin to - 'to get/begin to hear .....

a - ba - Un

to be soaked become - 'to become soaked'

a - la - Un

to be clean become - 'to become clean'

EXAMPLES WITH STATIVE VERBS

Derived Verb	Examples
1. <u>a - jEn - Un</u>	a) Mam eong akoto ajenun akiro ngun. no - I - I want - to get/begin to know - words - those "I do not want to get to know that news".
2. <u>a - pup -un</u>	a) Mam ijo ipedori apupun ejok. no - you - you can - to get to hear... well "You won't get to hear/listen well."
3. <u>a - ba - Un</u>	a) Agiroto imare abaun. they have refused beans to become soaked "The beans have refused to become soaked."
4. <u>a - la - Un</u>	a) Akuroki apese na alaun cut. she has failed - girl - this - to become clean - completely "This girl has completely failed to become clean."

A. DERIVATIONS WITH PUNCTUAL VERBS

Infinitive + V root	
1. <u>a - Ibap</u> to slap	a) b) c)
2. <u>ai - pet</u> to kick	a) b) c)
3. <u>a - IkIs</u> to scrape	a) b) c) d)

APPENDIX II

SUFFIX /-ar/

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Infinitive + V root + Suffix /-ar/

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a - Ibap - ar

- to slap someone/something so that he/it moves away from speaker
- to go and slap someone/something there.
- to complete slapping someone/something.

a - net - Or

- to kick someone/something away from speaker
- to go and kick someone/something there.
- to complete kicking someone/something

a - IkIs - ar

- to scrape away from speaker
- to scrape something and take away from speaker
- to go and scrape something there
- to complete scraping something.



Derived Verb	Examples
2. <u>a - pet - Or</u>	<p>a) Itamit            ijo            apetor            emopiira            ogoolo? you were trying - you - to kick away - ball - to net?" "Were you trying to kick the ball towards the net?" ( the speaker is away from net )</p>
	<p>b) Neelosi            nesi            kere            abuni            eong            apetor            nes            ngipengina. where he goes - him/all - I will - I - kick him there. "I will go and kick him at whatever place he go to."</p>
	<p>c) Adaam            ikapa            yen            apetor            akakile. it has finished-cat- this - to complete kicking- my milk "This cat has completed kicking my milk."</p>
3. <u>a - Ikis - ar</u>	<p>a) Onyarau            ngul            opotu            aikisar            alupo            nu            ngina . you call - those children-they come-to scrape away-soil this- there "Call those children to come and scrape this soil there."</p>

Derived Verb	Examples
	<p>b) Ikotosi                      cabo        yesi            aikisar                      akamujaj! you (pl) want - somehow - you (pl) - to scrape and take - my sisal "It looks like you want to scrape and take away my sisal!"</p>
	<p>c) Olototo                      aikisar                      amujaj                      osomero. you (pl) go - to scrape - sisal - at school "Go and scrape sisal at school."</p>
	<p>d) Ekoto                      ber        papa            aikisar                      amujaj                      eroko                      itunga                      kepona. he wants - yet - father - to complete scraping-sisal-before-people- come "Father wants to complete scraping sisal before people come."</p>

B. DERIVATIONS

Infinitive + V root	.
1. <u>a - gwE1</u> to buy	
2. <u>a - ipo</u> to cook	
3. <u>ai - buk</u> to pour/empty	
4. <u>a - ibuŋa</u> to beat	



WITH DURATIVE VERBS

Infinitive + V root + Suffix / - ar/

a - gwEl - ar

- a) to buy and take away from speaker
- b) to go and buy something there.
- c) to complete buying something.

a - ipo - un

- a) to cook and take away from speaker.
- b) to go and cook there.
- c) to complete cooking.

a - buk - Or

- a) to pour away from speaker
- b) to go and pour there
- c) to complete pouring

a - ibuŋa - ar

- a) to - beat while going away from speaker
- b) to go and beat there
- c) to complete beating.

EXAMPLES WITH DURATIVE VERBS

Derived Verb	Examples
1. <u>a - gwel - ar</u>	<p>a) Ebala toto eong agwelar imare da. She says - mother - I - to buy and take- beans also "Mother says I should buy and take some beans as well."</p> <p>b) Ai ilosi ijo agwelar imare? where - you are going -you - to buy there beans "Where are you going to buy beans?"</p> <p>c) Iupar oni kadau eong agwelar amoti. we shall go together-we -if I finish - I - to buy pots "We shall go together after I complete selling<sup>17</sup> the pots"</p>

Derived Verb	Examples
2) <u>a - IpO - Or</u>	<p>a) Ingit apesur aipoor inyammat ates. you ask - girls - to cook and take - food - to grave "Ask the girls to cook and take food to the funeral"</p> <p>b) Enyounitōs apesur aipoor ates. they are intending - girls - to go and cook - grave "The girls are intending to go and cook at the funeral."</p> <p>c) Ekoto lolo toto aipoor ikemare. She wants -today- mother- to finish cooking - her beans "Mother wants to cook all her beans today."</p>
3) <u>a - buk - Or</u>	<p>a) Nukangai akiipi ikotosi yesi abukor. of whom - water - you (pl) want - you (pl) - to pour away "Whose water do you want to pour away?"</p> <p>b) Alosi eong ngina abukor akiipi aberu kangin. I am going - I - there - to pour - water - of woman - that "I am going there to pour away that woman's water."</p>

Derive Verb	Examples
4. <u>ai - buca - ar</u>	<p>c) Yesi aomikin eong akipi kwa idauniata yesi abukor you (pl) you will fetch for - I - water - as - you have finished you to pour "You must fetch me some water since you have completed pouring mine."</p> <p>a) Ekoto lolo etuan lo aibu ar ikakolu orot. he wants - today- man - this - to beat while going - my child - on the road "This man wants to beat my child on the way."</p> <p>b) Angodingod alosi eong abu ar ekokolan ngol Angodingod - I am going I - to beat there - thief - that "I am going to beat that thief at 'Angodingod'" 18</p> <p>c) Anyoikit ber eong aibu ar ikamare. I intend - yet - I - to complete beating my beans. "I am intending to complete beating my beans."</p>

C. DERIVATIONS WITH STATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix /-ar/
1. <u>ai - jEn</u> to know	<u>a - jEn - ar</u> a) to know go there to - 'to go to know there'
2. <u>ai - pup</u> to hear/listen/understand/ feel	<u>a - pup - Or</u> a) to hear/listen ..... go there - 'to go to hear..... there.'
3. <u>aI - ba</u> to be soaked	<u>a - ba - ar</u> a) to be soaked go there - 'to go and be soaked there'
4. <u>aI - la</u> to be clean	<u>a - la - ar</u> a) to be clean go there - 'to go and be clean there'

EXAMPLES WITH STATIVE VERBS

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Derived Verbs	Examples
1. <u>a - jen - ar</u>	Alosi eong ajenar ngol oreke. I am going - I - to know - that one - home his "I am going to know that guy right in his home."
2. <u>a - pup - Or</u>	Abuni eong apupor iyemuto ngul osokooni. I will - I - to hear - news - those - to market "I will hear that news at the market."
3. <u>a - bar - ar</u>	Elosete imare - abaar ore. they will go - beans - to be soaked - home "The beans will be soaked at home."
4. <u>a - la - ar</u>	Otaun alosi eong da alaar. to town - I am going - I - also - to be clean "It is in town that I will also be clean."

A. DERIVATIONS WITH PUNCTUAL VERBS

Infinitive + V root	
1. <u>a - Ibap</u> to slap	a) b) c)
2. <u>ai - pet</u> to kick	a) b) c)

APPENDIX III

SUFFIX /- akIn/

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Infinitive + V root + Suffix / - akIn /

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a - Ibap - akIn

to slap for someone

to slap someone/something at a place

to " " " onto/against someone

a - pet - okin

to kick for someone

to " someone/something at a place

to " someone/something onto/against another



Infinitive + V root	Infinitive + V root + Suffix /- akIn/
<p>3. <u>a - IkIs</u> to scrape</p>	<p><u>a - IkIs - akIn</u></p> <p>a) to scrape for someone</p> <p>b) to scrape something at a place</p> <p>c) " " something into/onto/against another.</p>

EXAMPLES WITH PUNCTUAL VERBS

Derived Verb	Examples
<p>1. <u>aI - bap - akIn</u></p>	<p>a) Ipedori ijo aibapakin eong apese ngin? You can you to slap for me- I - girl that "Can you slap for me that girl?"</p> <p>b) Mam edolit aberu aibapakin orekec no - it is fit - wife - to slap at - home their. "It is not proper to hit a wife at her parents home."</p>

Derived Verb	Examples
2. <u>a - pet - okin</u>	<p>c) Ekoto ikoku yen aibapakin ipejok akipi. he wants - child - this to slap onto/against - visitors - water "This child wants to slap water onto the visitors".</p> <p>a) Mam icamuni apetokin etelepat ngol emopiira. no you accept to kick for boy that ball "Do not accept to kick the ball for that boy."</p> <p>b) Ai ilosete yesi apetokin emopiira? where you are going you to kick at the ball "At what place are you going to kick the ball?"</p> <p>c) Okello nes abala eong apetokin ikoku emopiira akoik. Okello is one who said I kick onto child ball abdomen "Okello is the one who told me to kick the ball onto the child's abdomen."</p>

Derived Verbs	Examples
3. <u>aI - kIs - akIn</u>	<p>a) Lukangai ecamunete aikisakin tata amujaj? who (pl) they accept to scrape for grandmother sisal "Who will accept to scrape sisal for grandmother?"</p> <p>b) Ebala toto ebe iso alosit aikisakin agaria ore. She says mother that we to go to scrape at fish home "Mother says we should go to scrape the fish at home".</p> <p>c) Agir Akello aikisakin ekia akipi. She has refused Akello to scrape onto herb water "Akello has refused to scrape the herbs onto the water."</p>

B. DERIVATIONS WITH DURATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix /-Akin/
<p>1. <u>a - gwɛl</u> to buy</p>	<p><u>a - gwɛl - akIn</u> a) to buy for someone b) to buy at a place c) to buy and put into/against something</p>
<p>2. <u>a - ipo</u> to cook</p>	<p><u>a - ipo - ikin</u> a) to cook for someone b) to cook at a place c) to cook and put into something</p>
<p>3. <u>ai - buk</u> to pour/empty</p>	<p><u>a - buk - OkIn</u> a) to pour for someone b) to pour at a place c) to pour into/onto/against someone/something</p>
<p>4. <u>a - ibuŋa</u> to beat</p>	<p><u>a - ibuŋa - IkIn</u> a) to beat for someone b) to beat someone/something at a place c) to beat someone/something so that he/it goes into/onto/another</p>

Derived Verb	Examples
1. <u>a - gwEl - akIn</u>	a) Ingai ecamuni agwelakin aaronon lo egoe? who accepted to buy for bad man this cloth? "Who accepted to buy a cloth for this bad man?"
	b) Edolit agwelakin igoen orot. it is fit to buy at clothes on way "It is better to buy clothes on the way".
	c) Asaduku na agwelakin igoen box this to buy into clothes "Here is a suitcase to buy clothes and put in".
2. <u>ai - po - ikin</u>	a) Olot aipoikin idwe inyamat. You go to cook for children food "Go to cook food for the children".
	b) Ebala tata aipoikin inyamat oreke. she says grandmother to cook at food home her "Grandmother says food will be cooked at her home."

Derived Verb	Examples
3. <u>a - buk - OkIn</u>	c) Abakuli na aipoikin imare. bowl this to cook and put into beans "Here is a bowl to put beans after cooking."
	a) Agir apese na abukokin eong anot. she has refused girl this to empty for me pot. "This girl has refused to empty the pot for me."
	b) Ore edolitor ngin abukokin ajon. at home it is fit that one to pour for at beer "It is at home that that woman should get beer."
	c) Ekoto ikoku abukokin ikapa akipi. she wants child to pour onto cat water "The child wants to pour water onto the cat."

Derived Verb	Examples
1. <u>ai - buḡa - IkIn</u>	<p>a) Erai ojai ituan ecamuni aibuḡaikin eong apese na ti ejok . if - it was there -person- who can accept- to beat for- I-girl-this- it should be good "If there was someone who would accept to beat for me this girl it would be good."</p> <p>b) Osomero alosi eong aibuḡaikin ngin. at/to school I am going I to beat at that one "It is at school that I will beat that girl."</p> <p>c) Itelepai itomon elosete aibuḡaikin akituk auj. boys ten are going to beat so that the go- cows to kraal. "Ten boys are going to beat the cows so that they can go into the kraal."</p>

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Infinitive + V root

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1. ai - jEn

to know

2. ai - pup

to hear/listen/understand/feel

3. aI - ba

to be soaked

4. aI - la

to be clean



C. DERIVATIONS WITH STATIVE VERBS

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Infinitive + V root + Suffix /-akIn

---

a - jEn - akIn

- a) to know for someone
- b) to know at a place

a - pup - OkIn

- a) to hear ..... for someone
- b) to hear ..... at a place

a - ba - IkIn

- a) to be soaked at a place

a - la - IkIn

- a) to be clean for someone
- b) to be clean at a place

EXAMPLES WITH STATIVE VERBS

Derived Verb	Examples
<p>1. <u>a - pup - OkIn</u></p>	<p>a. Alosi eong apupokin papa iyemuto okekwa je.  I am going I to listen/near for father news at side that  "I am going to listen to the news for father on the other side".</p> <p>b. Osomero ilosi iso apupokin ikososinei  at school we are going we to listen to songs  "It is at school that we shall listen to the songs."</p>
<p>2. <u>a - jEn - akIn</u></p>	<p>a. Ingai elosi ajenakin eong akituk nu eja ore ngol?  who will go to know for I cows which are at home that  "Who is going to know the cows which are in that home on my behalf?"</p>
<p>3. <u>a - ba - IkIn</u></p>	<p>Elosete imare lu abaikin oreka  they are going beans these to be soaked at home my  "These beans are going to be soaked at my home."</p>

Derived Verb	
4. <u>a - la - IkIn</u>	a)
	b).

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Examples

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Mam idiotuan epedori apese ngin alaikin.  
no any person she can girl that to be clean to

"There is no one who can see that girl as being clean."

O town alosi eong da alaikin.  
to town - I am going - I - also- to be clean.

"It is in town that I will also be clean."

APPENDIX IV

SUFFIX /-akIn - [+ATR]/

A. DERIVATIONS WITH PUNCTUAL VERBS

Infinitive + V root	Infinitive + V root + suffix /-akIn - [+ATR]/
1. <u>a - Ibap</u> to slap	<u>a - Ibap - alin</u> a) to slap each other b) to slap each other at a place c) to..slap someone/something for each other d) to slap someone/something for each other at a place e) to slap someone/something into/onto/against each other at a place.
2. <u>ai - pet</u> to kick	<u>a - pet - okin</u> a) to kick each other b) to kick each other at a place c) to kick someone/something for each other d) to kick someone/something for each other at a place e) to kick someone/something into/onto/against each other f) to kick someone/something into/onto/against each other at a place.

Infinitive + V root	
3. <u>a - IkIs</u> to scrape	

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Infinitive + V root + Suffix /-akIn - [+ATR] /

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a - IkIs - akin

- a) to scrape each other (vaccination)
- b) to scrape each other at a place
- c) to scrape someone/something for each other
- d) to scrape something into/onto/against each other
- f) to scrape something into/onto/against each other

EXAMPLES WITH PUNCTUAL VERBS

Derived Verb	Examples
1. <u>a - Ibaḡ - akin</u>	<p>a) Ekotosi lu aibapakin. they want - these ones - to slap each other "These guys want to slap each other."</p> <p>b) Ilosi iso aibapakin ore. we are going - we - to slap each other - at home "We are going to slap each other at home."</p> <p>c) Acamutu angor aibapakin idwe. they have agreed- women - to slap for each other- children. "The women have agreed to slap the children for each other."</p> <p>d) Acamutu angor aibapakin idwe kosomero they have agreed- women-to slap <b>for each other</b>- children - at school "The women have agreed to slap the children for each other at school."</p> <p>e) Ekotosi itelepai aibapakin akipi. they want - boys - to slap onto each other - water "The boys have agreed to slap water onto each other."</p>



Derived Verb	Examples
<p>2. <u>a - pet - okin</u></p>	<p>f. Ekotosi itelepai aibapakin akipi kore.  they want - boys - to slap onto each other - water- at home.  "The boys want to slap water onto each other at home."</p> <p>a. Esil yesi apetokin.  it is shameful -you (pl) to kick each other  "It is shameful for you to kick each other."</p> <p>b. Esil yesi apetokin kotunga.  it is shameful - you - to kick each other - at people  "It is shameful for you to kick each other at a place where people are present."</p> <p>c) Agiroto kwi apetokin emopiira.  they have refused - they- to kick for each other - ball  "They have refused to kick the ball for each other."</p>

Derived Verb	Examples
	<p>d) Agiroto                    kwi                    apetokin                    emopiira                    kosomero. they have refused- they - to kick for each other - ball- at school "They have refused to kick the ball for each other at school."</p> <p>e) Esil                    yesi                    apetokin                    apua. it is shameful -you - to kick onto each other - dust. "It is shameful for you to kick dust onto each other."</p> <p>f) Esil                    yesi                    apetokin                    apua                    kotunga. it is shameful- you - to kick onto each other - dust - at people. "It is shameful for you to kick dust onto each other at a place where people are present."</p>
3. <u>a - IkIs - akin</u>	<p>a) Icamu                    iso                    aikisakin                    ekato                    moi. we have agreed -we - to scrape each other- vaccination - tomorrow "We have agreed to vaccinate each other tomorrow."</p> <p>b) Icamu                    iso                    aikisakin                    ekato                    moi                    kadekis. we have agreed -we - to scrape each other - vaccination-tomorrow - in hospital "We have agreed to vaccinate each other tomorrow in hospital."</p>

Derived Verb	Examples
c) Itemokino	itelepai aikisakin arujaj osabiti ngol. they are ready - boys - to scrape for each other -sisal - at week that "The boys have planned to scrape sisal for each other next week."
d) Ai	elosete kesi aikisakin arujaj? where - they are going- they- to scrape for each other - sisal "Where are they going to scrape sisal for each other?"
e) Ikotosi	cabo yesi aikisakin asinge! you want - somehow - you (pl) to scrape onto each other - sand "It appears like you want to scrape sand onto each other!"
f) Esubit	bala elosete kesi aikisakin asinge orot. it looks - like - they are going - they - to scrape onto each other-sisal-at road. "It looks like they are going to scrape sand onto each other on the way."

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Infinitive + V root

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1. a - wEl  
to buy
  
2. a - ipo  
to cook
  
3. ai - buk  
to pour/empty
  
4. a - ibu ŋ a  
to beat

DERIVATIONS WITH DURATIVE VERBS

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Infinitive + V root + Suffix /-akIn - [+ATR]/

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a - gwel - akin

- a) to buy for each other
- b) to buy for each other at a place
- c) to buy

a - ipo - ikin

- a) to cook for each other
- b) to cook for each other at a place

a - buk - okin

- a) to - pour for each other
- b) to pour for each other at a place
- c) to pour something onto each other
- d) to pour something onto each other at a place

a - ibuŋa - ikin

- a) to beat each other
- b) to beat each other at a place
- c) to beat someone/something for each other
- d) to beat someone/something for each other at place.

EXAMPLES WITH DURATIVE VERBS

Derived Verb	Examples
1. <u>a - gwEl - akin</u>	<p>a) Enyounitos            apesur    agwelakin            igoen. they are intending - girls - to buy for each other - clothes "The girls are intending to buy clothes for each other."</p> <p>b) Enyounitos            apesur    agwelakin            igoen    kagwelanaret. they are intending - girls - to buy for each other- clothes- at shopping centre "The girls are intending to buy clothes for each other at the shopping centre."</p>
2. <u>a - ipo - ikin</u>	<p>a) Ikurokini            yesi    aipoikin            inyamat? you will fail - you(pl) to cook for each other - food "Will you fail to cook food for each other?"</p> <p>b) Ikurokini            yesi    aipoikin            inyamat    kore? you will fail - you (pl) - to cook for each other - food - at home "Will you fail to cook food for each other at home?"</p>

Derived Verb	Examples
3. <u>a - buk - okin</u>	<p>a) Edolit yesi abukokin amoti eroko akolong epol. it is fit - you (pl) - to empty for each other- pots -before- sun- is big "You should empty the pots for each other when the sun is still up."</p> <p>b) Agirito ikiliok abukokin akipi kasuban. they have refused - men - to pour for each other- water- at ceremony "The men have refused to pour water for each other at the ceremony."</p> <p>c) Okerata abukokin akipi. you ran - to pour onto each other - water "Run to pour water onto each other".</p> <p>d) Okerata abukokin akipi kocor. you ran - to pour onto each other -water - at well "Run to pour water onto each other at the well.2</p>
4. <u>a - ibuḡa - ikin</u>	<p>a) Lukangai ekotosi aibuḡa ikin? who are those - they want - to beat - each other "Who are those who want to beat each other?"</p>

Derived Verb	Examples
	<p>b) Apotu hwi kocamutu aibugaijin orot.  they did - they- to agree - to beat each other - at road  "They agreed to beat each other on the way."</p> <p>c) Anyoikitos itelepai aibugaijin apesur.  they are intending - boys - to beat for each other - girls.  "The boys are intending to beat the girls for each other."</p> <p>d) Anyoikitos itelepai aibugaijin apesur katenus  they are intending - boys - to beat for each other- girls - at dance place  "The boys are intending to beat girls for each other in the dance place."</p>



C. DERIVATIONS WITH STATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix /-akin - [ATR]/
1. <u>ai - jEn</u> to know	<u>a - jEn - akin</u> a) to know each other b) to know each other at a place c) to know someone/something for each other d) to know someone/something for each other at a place
2. <u>ai - pup</u> to hear/listen/understand/ feel	<u>a - pup - okin</u> a) to hear .... each other b) to hear .... each other at a place c) to hear .... someone/something for each other d) to hear .... someone/something for each other at a place.
3. <u>aI - ba</u> to be soaked	* a - ba - ikin
4. <u>aI - la</u> to be clean	* a - la - ikin

EXAMPLES WITH STATIVE VERBS

Derived Verb	Examples
1. <u>a - jEn - akin</u>	<p>a) Ekoto yesi ajenakin. it wants - you (pl)- to know each other "You should know each other."</p> <p>b) Ilosi iso ajenakin ngina. we are going-we - to know each other - there "We shall know each other there."</p> <p>c) Ipedori oni ajenakin iitabon. we can - we - to know for each other - books "We can identify the books for each other."</p> <p>d) Ipedori oni ajenakin iitabon kosomero. we can - we - to know for each other - books - at school. "We can identify the books for each other at school."</p>
2. <u>a - pup - okin</u>	<p>a) Agiroto isisianakinak apupokin. they have refused - teachers - to listen to each other. "The teachers have refused to listen to each other."</p>

Derived Verb	Examples
	<p>b) Ates        ilosete        yesi        apupokin! in grave - you are going - you (pl) - to listen to each other "It is only in the grave that you will listen to each other."</p>

APPENDIX V

SUFFIX /-Ia/

A. DERIVATIONS WITH PUNCTUAL VERBS

Infinitive + V root	Infinitive + V root + Suffix /-Ia/
1. <u>a - Ibap</u> to slap	<u>a - Ibap - Ia</u> a) to slap with b) to slap because of
2. <u>ai - pet</u> to kick	<u>a - pes - IO</u> a) to kick with b) to kick because of
3. <u>a - IkIs</u> to scrape	<u>a - IkIs - Ia</u> a) to scrape with b) to scrape because of

A. DERIVATIONS WITH PUNCTUAL VERBS

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Infinitive + V root

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1. a - Ibap  
to slap

2. ai - pet  
to kick

3. a - IkIs  
to scrape

APPENDIX V

SUFFIX /-Ia/

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Infinitive + V root + Suffix /-Ia/

---

a - Ibap - Ia

- a) to slap with
- b) to slap because of

a - pes - IO

- a) to kick with
- b) to kick because of

a - IkIs - Ia

- a) to scrape with
- b) to scrape because of

EXAMPLES WITH PUNCTUAL VERBS

Derived Verb	Examples
<p>1. <u>aI - bap - Ia</u></p>	<p>a) Ename eong akan na edolitor aibapia aberu.  it is not there I hand which it is fit to slap with woman  "I do not have a hand with which to slap the woman."</p> <p>b) Inyo ikotor ijo aibapia nes?  what you want you to slap because her  "Why do you want to slap her?"</p>
<p>2. <u>a - pes - IO</u></p>	<p>a) Mam akeju kon edolitor apesio idiotunganan  no leg your it is fit to kick with any person  "Your leg is not fit to be used to kick any one."</p> <p>b) Kanu kinyo mam akaakeju edolitor apesio idiotunganan?  for what reason no my leg it is fit to kick because any person  "For what reason is my leg not fit for kicking any person?"</p>

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Derived Verb	Examples
3. <u>aI - kIs - Ia</u>	a) Oinakinai           cong           ekileng           aikisia           a mujaj. you give me           I           knife           sto scrape with           sisal "Give me a knife with which to scrape the sisal."
	b) Kanu, kinyo           ikotor           ijo           aikisia           kes? for what reason you want you to scrape them "For what reason do you want to scrape them?"



Derived Verb	Examples
3. <u>aI - kIs - Ia</u>	<p>a) Oinakinai           cong        ekileng       aikisia        a mujaj. you give me        I        knife       sto scrape with   sisal "Give me a knife with which to scrape the sisal."</p> <p>b) Kanur kinyo        ikotor        ijo        aikisia        kes? for what reason you want you to scrape them "For what reason do you want to scrape them?"</p>

B. DERIVATIONS WITH DURATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix /-Ia/
1. <u>a - gwEl</u> to buy	<u>a - gwEl - Ia</u> a) to buy with b) to buy because of
2. <u>a - ipo</u> to cook	<u>a - IpO - yO</u> a) to cook with b) to cook because of
3. <u>ai - buk</u> to pour/empty	<u>a - buk - IO</u> a) to pour/empty with b) to pour/empty because of
4. <u>a - ibu) a</u> to beat	<u>a - ibu) a - a</u> a) to beat with b) to beat because of

Derived Verb	Examples
1. <u>a - gwel - Ia</u>	<p>a) Ikapun lu agwelia imare. money - this - to buy with - beans "Here is money with which to buy beans."</p> <p>b) Mam ciner ngol adolitor ijo a gwelia inyamat no - talk - that - it was fit - you - to buy because - food "That talk should not have made you buy food."</p>
2. <u>aI - p0 - y0</u>	<p>a) Alosi eong ailipun amot aipoyo imare. I am going I to borrow pot to cook with beans "I am going to borrow a pot with which to cook beans."</p> <p>b) Emame ibore acamunia eong aipoyo akojo. it is not a thing I accept I to cook bones "There is nothing that can make me accept to cook bones."</p>
3. <u>a - buk - IO</u>	<p>a) Ado na abukio amot. pail this to empty with pot. "Here is a pail with which to empty the pot."</p>

Derived Verb	Examples
4. <u>ai - buḡa - a</u>	b) Mam adolitor yesi acelakus abukio akipi onyamat. no it was fit you quarrel your to pour because water on food "You should not have poured water on the food because of your quarrel."
	a) Ebela to aibuḡaa apesur. club this to beat with girls "Here is a club with which to beat the girls."
	b) Akokolanut ke akotor eong aibu ea nes. his thieving his I wanted I to beat because him "It is because of his thieving that I wanted to beat him"

C. DERIVATIONS WITH STATIVE VERBS

Infinitive + V root	Infinitive + V root + Suffix /-Ia/
1. <u>ai - jEn</u> to know	<u>a - jEn - Ia</u> a) to know with b) to know because of
2. <u>ai - pup</u> to hear/listen/understand/ feel	<u>a - pup - IO</u> a) to hear ..... with b) to hear ..... because of
3. <u>aI - ba</u> to be soaked	<u>a - ba - ya</u> a) to be soaked with b) to be soaked because of
4. <u>aI - la</u> to be clean	<u>a - la - ya</u> a) to be clean with b) to be clean because of

EXAMPLES WITH CREATIVE VERBS

Derived Verb	Examples
1. <u>a - jEn - Ia</u>	<p>a) Akoto eong asuwat na ajenia ikoku. I want I bungle this to know with child "I want this bungle to know the child with."</p> <p>b) Kanu kinyo ikotor ijo ajenia nes? for what reason you want you to know because her "For what reason do you want to know her?"</p>
2. <u>a - pup - IO</u>	<p>a) Ayangari eong da eredio apupio iyemuto. I am taking I also radio to listen with news. "I am also taking the radio with which to listen to the news."</p> <p>b) Kanu kinyo ikotor ijo apupio iyemuto? for what reason you want you to listen because news "For what reason do you want to listen <sup>to</sup>/the news."</p>
3. <u>a - ba - ya</u>	<p>a) Ekotosi imare lu acekipi abaya. they want beans these more water to be soaked with. "These beans need more water with which to be soaked."</p>

Derived Verb	Examples
	<p>b) Inyo ikotor ijo kes abaya? why you want you them to be soaked. "Why do you want them to be soaked?"</p>

Footnotes

13. Examples are all orthographic rather than phonetic.
14. The speaker is in the verandah.
15. 'Eboo' is a kind of vegetable.
16. The speaker is with the visitors.
17. The notion of completing to buy seems to be interpreted as completing to sell.
18. 'Angodingod' is a name of a village.