Ateso Grammar: A Descriptive Account of an Eastern Nilotic Language

David Barasa

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Supervised by: Prof. Ana Deumert

Dr. Mantoa Smouse

Prof. Gerrit Dimmendaal

Dr. Helga Schroeder

Declaration

I declare that "Ateso Grammar: A Descriptive Account of an Eastern Nilotic Language" is my own work. Each significant contribution to, and quotation in, this thesis from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature: Date: 15th March, 2017

Signed by candidate

Abstract

This study discusses the structure of Ateso, an Eastern Nilotic language. Based on interview and recorded data from fieldwork conducted in both Uganda and Kenya, where Ateso is spoken, the study provides the first comprehensive description of the phonology, morphology and syntax of the language. The main findings of this study are as follows:

The key feature of Ateso's phonological structure is that vowel alternation strategies are constrained by three harmony rules: root-control, feature-control, and, finally, mid-vowel assimilation. While Ateso shares this structure with the other Eastern Nilotic languages, it has its unique features as well. For example, while the other members of the Eastern Nilotic family have lost the vowel */ä/, Ateso has retained it phonetically.

Ateso's noun morphology has noun-inflectional affixes associated with gender- and number marking. The language employs noun prefixes for gender and uses suffixes to express number and to derive words from others. With regard to its verbal morphology, Ateso verb forms are inflected for a variety of functions. Inflectional categories such as person, number, tense, aspect and mood are marked on the verb either segmentally or supra-segmentally. Tense is expressed supra-segmentally by tone on the nucleus of verb roots, while different morphemes mark person, number, aspect and mood. The discussion of Ateso verb morphology covers verbal derivations and extensions; namely, causatives, ventives, itives, datives, iterative, passives and instrumentals.

Regarding its syntactic structure, as a VS/VO language, Ateso allows for a complete clause made up of an inflected verb only, or an inflected verb followed by one or two NPs/or an NP and a pronoun. The language can also have sentence structures involving strategies such as coordination, subordination and clause chaining.

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May God bless you all.

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Abbreviations

1 First Person

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ATT – Attitude Marker

ABS – Absolute

ADV – Adverb

AUX – Auxiliary

C – Consonant

CGV – Consonant, Glide, Vowel

COMP – Complementiser

COND – Conditional

CONJ – Conjunction

D – Diminutive

DAT – Dative

EM – Epenthetic Morpheme

EXCL – Exclusive

F – Feminine

G – Glide

GEN – Genitive (case)

HAB – Habitual

IMP – Imperative

INCL – Inclusive

INF – Infinitive

INST – Instrumental

IPFV – Imperfective aspect

IT – Itive

KNBS – Kenya National Bureau of Statistics

M – Masculine

N – Noun

NOM – Nominative

NP – Noun Phrase

NPAST – Non-past tense

PAST – Past tense

PFV – Perfective

PRF – Perfect

PL – Plural

PREP – Preposition

PRF – Perfect

REC – Reciprocal

REL – Relativiser

SG – Singular

SIL – Summer Institute of Linguistics

SM – Simultaneity

STV – Stative verb

UNESCO – United Nations Educational, Scientific and Cultural Organisation

UNHCR – United Nations High Commissioner for Refugees

V – Vowel

VEN – Ventive

VP – Verb Phrase

VSO – Verb Subject Object

Chapter One: Introduction

1.1 Background to and rationale for the study

This thesis concerns Ateso. Both the Kenyan and Ugandan government have marginalised Ateso and other African languages. Through national language policies, and as an aftermath of the history of colonialism, most African governments have – in the past – pushed the majority of the African languages to the periphery. Consequently, many African languages – both with small and large numbers of speakers – remain either undocumented or under-documented (see Muthwii 2002, Trudell 2005, UNHCR 2003). Inadequate financial and intellectual support from governments has further hindered efforts directed at developing African languages. This has led to the neglect of the documentation and description of languages such as Ateso.

For two decades, international organizations such as the United Nations (UN) through its cultural body (see UNESCO 2013a), together with the African Union (2006) have supported documentation of undocumented or under-documented African languages. Most of the more than 2000 languages spoken on the African continent are either undocumented or under-documented (see Dimmendaal 2016, Ladefoged 1992, Blench 2007, Krauss 2007 and Batibo 2009).

More recent government policies in Uganda and Kenya are in favour of multilingual mother tongue education.[1] These policies aim to ensure that first-languages are re-introduced into the education system and used as a medium of instruction at lower primary level. The guidelines - if implemented - will officially introduce Ateso into the school system.

Kenya's constitution (The Republic of Kenya 2010) provides an avenue for the advocacy of linguistic diversity by stipulating that the state shall develop, promote and protect the diversity of languages of the people of Kenya. In Uganda, *The Government White Paper* (1992) which has been a guiding policy for first-language use in education recommends first-language instruction up to primary 4. Ateso was identified as one of the languages in Uganda that should serve as a medium of instruction within the areas inhabited by the Iteso. Just like Labwor, a Southern Lwoo

[1] The term mother tongue, henceforth referred to as first-language in this thesis, denotes any language that a person acquires in childhood from the immediate environment and daily interactions at home. Second language refers to languages that are learnt subsequent to the first-language (both formally and informally; see e.g. UNESCO 2013b: 15, for additional information).

language and many other indigenous languages, Ateso is proposed to become a medium of instruction in the first four years of primary education, even though there are, at this stage, no textbooks in the language (see Heine & König 2010: 10). More recent literature indicates that insufficient resources have hampered implementation of first-language based education (Heugh & Bwanika 2015).

This thesis is the first comprehensive descriptive grammar of Ateso, a language of the Teso-Turkana sub-branch of Eastern Nilotic branch. Ateso is spoken by the Iteso people in Uganda and Kenya. There are few publications on Ateso and most aspects of its grammar have not yet been described. Thus, Noske & Otaala (2006: 3) note that the existing documentation is both, incomplete and outdated. In contrast, Toposa and Turkana, two closely related Eastern Nilotic languages, have been described by Schroeder (2008) and Dimmendaal (1983a), respectively (cf. Barasa 2015). Both authors suggest possible generalisations on various linguistic aspects for all Eastern Nilotic languages based on their analysis, and these claims are evaluated on the basis of data from Ateso in this study.

By describing the grammar (i.e. the phonology, morphology and syntax) of Ateso, this research contributes to language description. The thesis provides first of all a scholarly description of Ateso addressed to an academic audience, mainly Africanists and linguists. Secondly, the grammar may be used to inform language activities conducted by Iteso community members, such as the development of various teaching materials.

The study is primarily based on empirical data from first-language speakers as well as my own knowledge as a first-language speaker of Ateso. The findings are compared with existing studies on Nilotic languages from the other two branches, that is, Western and Southern Nilotic (e.g. Okombo 1982, Omondi 1983, Nyombe 1987, Creider & Creider 1990, Oduor 2002, Storch 2005, Jerono 2011, Hieda 2013).

The linguistic analysis is conducted by first describing the understudied phonological system of the language (chapter three). The study also describes the complex noun and verb morphology. Ateso, being a verb-initial language with a canonical VS/VO structure, has the verb as a core element of the clause. The verb holds unique structural linguistic features such as tense, aspect and number, which are investigated in this study. Moreover, the thesis seeks to develop an

explanation of the VS/VO pattern while also assessing the linguistic insights from earlier analysis on the clause patterns in other Eastern-Nilotic languages.

The following sections of this chapter present the research questions and an outline of the study.

1.2 Research questions

The project is a descriptive grammar of Ateso. While producing the first comprehensive grammar of Ateso, the following specific questions on Ateso are addressed in this thesis:

a. What are the phonetic and phonological systems of Ateso?
b. What noun inflectional and derivational forms exist in Ateso?
c. Which general morphological forms does the verb undergo?
d. What is the case system of the language?
e. How are clauses and sentence structures formed in Ateso?

1.3 Outline of the study

The study includes the description and analysis of phonology, morphology and syntax. The three broad units of analysis are presented in eight chapters. Principally, the chapters vary in length depending on the productivity of the unit being described. The outline for the study is as follows: chapter one provides an outline of the structure of the thesis.

Chapter two presents Ateso, a language of the Iteso community in its sociolinguistic and historical setting. Information on the classification of the language and its origin, geographical location, language use and contact phenomenon is provided. The chapter also introduces core elements such as the basic ideas of the structural theoretical framework and the methodology used for data collection and analysis.

In the third chapter, the phonology of Ateso is discussed. It deals with both segmental and supra-segmental features. Basic linguistic features such as the phoneme inventory, distribution and realization of phonemes and other phonological segments are established. The speech sounds and sound structure are introduced, as well as basic components such as tone assignment on the different categories of words, vowel harmony and vowel assimilation.

Chapter four focuses on the structure of the noun phrase. It describes the noun inflectional paradigms related to gender and number, different noun derivation processes as well as modifiers like numerals, adjectives, demonstratives, quantifiers and possessive modifiers.

Pronouns and pronominal alignment are discussed in chapter five. The chapter covers: personal, possessive, interrogative and relative pronouns. The two pronominal forms exhibited by the language, that is, the nominative alignment and the hierarchical system of person marking, are also covered.

Chapter six is on minor lexical categories of the language. The chapter mainly examines the adverbs, prepositions, attitude markers and restrictives.

The verb phrase, which is a core element in Ateso, is dealt with in chapters seven and eight. Chapter seven describes the verb root, the infinitive, and morpho-syntactic aspects such as verb agreement and suffixation. The discussion in this chapter shows how extensions are used to derive complex verbs from verb roots/stems. It explores the valence adjusting operations and examines their effect on word order. Co-occurrence of various valence morphemes within the same verb is described and analysed. Chapter eight establishes how person, number, tense, aspect and mood are marked in the language.

The morphosyntactic aspects of Ateso are dealt with in chapter nine. The chapter shows how case applies to nouns and pronouns. It presents information on marked nominative, genitive, locative and instrumental case marking.

Chapter ten analyses the clause and sentence structure. The prominence hierarchy, which relates to the relationship between subjects and objects, and patients and recipients, are used to account for the VS/VO structure that is attributed to the language. Complex relationships between elements of the sentence are discussed; these include descriptions of topic and focus.

The concluding chapter summarises the findings of the study. An outlook suggests topics and identifies questions for further research.

Chapter Two: The Iteso people and the Ateso language

Scholars have written substantially on the Iteso people. Historians, for instance, have published in-depth studies aimed at piecing together information on the origin and causes of Iteso migration (see Gulliver & Gulliver 1953, Vincent 1982, Karp 2004). Both the Ugandan and Kenyan government collect records (i.e. census data) on their current distribution and population demographics. Based on the existing literature as well as data collected during the fieldwork, information on Ateso-speaking people is discussed in this chapter. This information contributes to the understanding of the Iteso people in general, while outlining factors that have had an impact on their language.

The chapter looks at the Ateso speaking people in terms of their geographical distribution, their alleged origin, census figures, and socio-economic structures. The chapter further provides a sociolinguistic discussion of Ateso, focussing especially on external and regional variation. Finally, the theoretical framework as well as the methodology used for data collection and analysis is introduced.

2.1 The Iteso

This section gives basic information on the Iteso, that is, information on their origin, migration, current location and demographic data. It also gives an overview of their main socio-economic activities.

2.1.1 Origin of the Iteso and their alleged migration routes

Historically, the Iteso are believed to have originated in the North of present day South Sudan. Publications drawing on oral traditions trace the origin of the Iteso, together with the larger Nilotic group composed of the Jie, the Turkana and the Karamojong', to the Eastern part of a wider Nilotic cradle land (see Webster et al. 1973, de Berry 2000, Emwamu 1967).[2] The clan names and customs of the larger Nilotic group are distinct from those of the Iteso, perhaps a pointer to an early separation which goes back to the early seventeenth century.

According to Mwakikagile (2012: 147), a group of Iteso separated from the Karamojong' and moved further South over a period of centuries. In the seventeenth and eighteenth centuries, they

[2] Eastern, Western and Southern refer to the locations in the present day South Sudan.

had moved from what is presently North-Eastern Uganda into regions bordering the Lake Kyoga basin to the South-West (Jones 2005: 52). By *c.* 1787 to 1821, the Iteso had reached Mbale and Tororo (Webster et al. 1973: 11). Mbale and Tororo are still part of the Iteso's present day area of residence. Karp (1996: 9-10) notes that the migration eventually extended further South to the present day North-West Kenya where the Southern Iteso were separated from the Northern Iteso.

Webster et al. (1973) identify two major reasons for movement: the search for land and the search for a secure environment. Writing on the same topic, Makoloo (2005) notes that the migration of the Iteso were always influenced by change of weather, scarcity of resources and political reasons. The movements were either peaceful or war-like. In some cases, the Iteso had to force their way to control large parts of some of their present-day occupation in parts of Kenya and Uganda (Webster et al. 1973). Besides, Iteso's present migration to the urban areas is influenced by search for economic benefits, better health facilities, schools and modern amenities. The migration of the Iteso is summarised in Table (2.1) below.

Table 2.1: Migration of the Iteso: 1600 – to date

Period	**Regions**
Early 1600	Eastern, South Sudan to North-Eastern, Uganda
1600-1700	North-Eastern Uganda to South-West Uganda
1787-1821	South West Uganda to Mbale and Tororo
1821-	Migration extended further South (e.g. North-West Kenya)
To date	Mostly rural to urban migration

2.1.2 Demographic information

In this section I present an overview of the demographic aspects of the Iteso.

2.1.2.1 Geographical distribution

The Iteso currently reside in the Teso sub-region of Uganda, composed of ten districts (Tororo, Amuria, Soroti, Kumi, Katakwi, Kaberamaido, Bukedea, Serere, Pallisa and Ngora) and in parts of Western Kenya. The great majority of Iteso live in the Soroti District and some of the adjacent areas in the North-Eastern part of Uganda (Webster et al. 1973, Karp 1996). In Kenya, the Ateso-speaking people occupy parts of the counties of Busia and Bungoma.

Based on my observations during fieldwork, most of the places where the Iteso live are remote, with poor roads and limited access to cellphone signal. This is due to the historical marginalisation and neglect by both the Kenyan and Ugandan governments dating back to the 1980s (Vincent 1982). The Iteso in Kenya are a minority population when compared to the neighboring Luhyas in both Busia and Bungoma (cf. KNBS 2009).

The Iteso of Kenya live close to the Samia and the Abakhayo, two Bantu groups in Busia County, the Bukusu (a Bantu group in Bungoma County) and the Sabaot (a Nilotic group in Bungoma County). The latter group speaks a variety of Kalenjin, a Southern Nilotic language which has been described by Lodge (1995: 29).[3] A map showing areas occupied by the Iteso people both in Uganda and Kenya is presented in Figure (2.1) below.

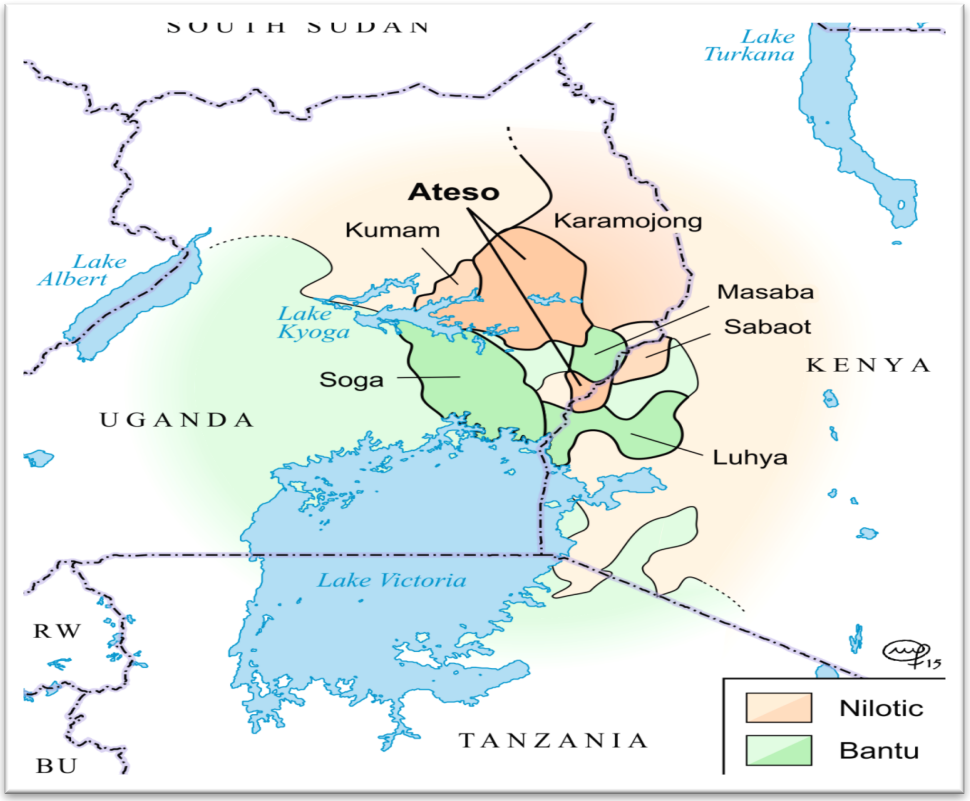


Figure 2.1: Map of Uganda and Kenya showing the Iteso regions of residence (map drawn by M. Feinen University of Cologne)

[3] The other ethnic groups, which form the Kalenjin cluster, are: The Tugen, Terik, Sengwer, Keiyo, Kipsigis, Nandi, Marakwet and Pokot.

The current trends in migration, intermarriages and other socio-political forces have resulted in the presence of other non-Iteso groups in areas that were historically occupied by the Iteso only (cf. for example, the present distribution of ethnic groups in Eastern Uganda in Appendix 1A). To some extent, this has led to the formation of a multilingual generation of young and middle aged people that do not identify with a single language group.

2.1.2.2 Population size

According to the 2009 Kenyan population census, Ateso has an estimated number of 338,833 (0.009% of the total population) speakers in Kenya (KNBS 2009). The population size of people who are ethnically Iteso in Uganda is estimated at 1.57 million people, which is about 6.1% of the total population (see Appendix 1B). The figures are from the census conducted in Uganda in 2002.

The current number of speakers of Ateso in Uganda and Kenya is estimated at 1.909 million people by Lewis et al. (2014) in the *Ethnologue*. Thus, most Ateso speakers reside in Uganda. However, the count focuses on ethnic identity and does not necessarily reflect the ability to speak the language since the question asked in the census was about ethnic rather than language identification. The statistics are thus estimates only.

Most of the younger generation acquire Kiswahili and English as part of their primary linguistic input (Barasa 2016). These young people are thus multilingual, with either Ateso abandoned or being one of the languages they speak (see section 2.2.3 for more information).

Though there is little evidence, in terms of publications, that multilingualism has resulted in attrition, it appears that some parents have consciously decided to give up their traditional lifestyle, including language, in order to emphasise a modern identity (Tembe & Norton 2008: 33). In some cases, I was informed by parents during fieldwork that their children do not speak Ateso, and have either acquired Kiswahili or English, or both, as their medium of communication. Thus, one can assume that the numbers of fluent speakers of Ateso are lower than the ethnic projections made by both the Ugandan and Kenyan population census.

2.1.3 Economic activities

The economic activities of the Iteso people have taken different courses after the British delineated the colonial boundaries between Kenya and Uganda in 1902 (Mwakikagile 2012: 84). Previously, unlike their counterparts in Uganda, the Iteso of Kenya were less wealthy owing to the fact that the region was a labour reserve for European-owned farms (Jones 2005). Mwakikagile (2012) further observes that this situation was compounded by successive marginalisations of the Iteso by the independence government. As a minority people in Kenya, the Iteso did not have numerical power and resources to exert their rights; hence they were consistently excluded in the allocation of resources and social services. The political instability in Uganda since 1970 has also affected the economic abilities of the Iteso in Uganda. Major economic setbacks have thus been witnessed over this period in the Iteso region.

The main economic activity for the Iteso, both in Kenya and Uganda, is crop farming (mainly of finger millet and sorghum) and cash crops such as cotton and tobacco. Cassava was introduced by colonial officials in the 1920s and is now a supplement to the two staples (Karp 1996). Agriculture is practised along with livestock keeping, mainly for subsistence and for cash. This is in opposition to the Karamojong' and Turkana who are still predominantly nomads with cattle rearing as their main economic activity. According to Mwakikagile (2012: 147), originally, the Iteso were cattle herders like the Karamojong' but not strictly pastoralists. Unfortunately, the number of cattle ownership is diminishing owing to cattle rustling from the Karamojong' and the adverse climate change coupled with the fact that the Iteso inhabit tsetse fly infested areas (cf. Ongodia 2014: 773). Small-scale fishing, for subsistence and cash, is done by those living around Lake Kyoga and in rivers close to them. Other income generating activities include: market trading and employment in both public and private sectors (Middleton 1997).

On the whole, information in section 2.1 is a useful step towards understanding the broader context of the Iteso. It forms a point for the discussion of the language of these speakers. The Ateso language is presented in the following section.

2.2 General information about the Ateso language

This section focuses on the external and internal variation of Ateso. The genetic and typological classification of Ateso is discussed, before the three dialects of Ateso – as outlined by Otaala

(1981) and confirmed by the fieldwork conducted for this study – are introduced. Following this, language repertoires and language use patterns from the different geographic areas in which Ateso is spoken will be presented.

2.2.1 The external variation

According to Koehler's (1955) classification of the Nilotic languages, Ateso belongs to the Teso-Turkana branch of the Eastern Nilotic branch. Greenberg (1963: 85) proposes a genetic classification of Ateso where he classifies Ateso as belonging to the Eastern Sudanic sub-group of the Nilo-Saharan phylum. The Nilotic branch is one of the ten branches of the Eastern Sudanic language family. The three main branches of the Nilotic language family are: Southern Nilotic, Eastern Nilotic and Western Nilotic. The Nilotic branch is illustrated in Figure (2.2) (adapted from Greenberg 1963).

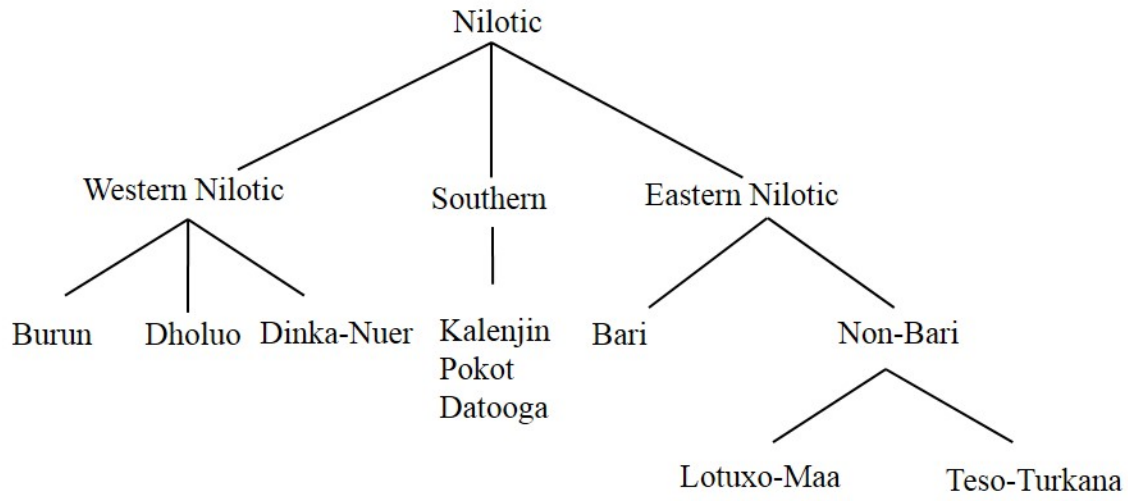


Figure 2.2: Illustration of the Nilotic branch according to Greenberg (1963)

The classification in Figure (2.2) is based on similarities in phonology, morphology and syntax, and on the basis of these similarities a common ancestry is postulated. The Teso-Turkana sub-branch forms further divisions of Ateso, Karamojong, Jie, Toposa-Jiye, Nyangatom (Donyiro) and Turkana. Apart from (Dho)Luo, languages in the Lwoo group within Western Nilotic group include: Kumam, Lango, Labwor, Nyakwai, Acholi and Alur.

In a similar classification, Webster et al. (1973) put Ateso as the language of 'a family of people which may be called Ateker (people of one language)'. Figure (2.3) below is a modified tree of the Eastern Nilotic languages sub-classification (according to Vossen 1982, adopted from Dimmendaal 2011: 63).

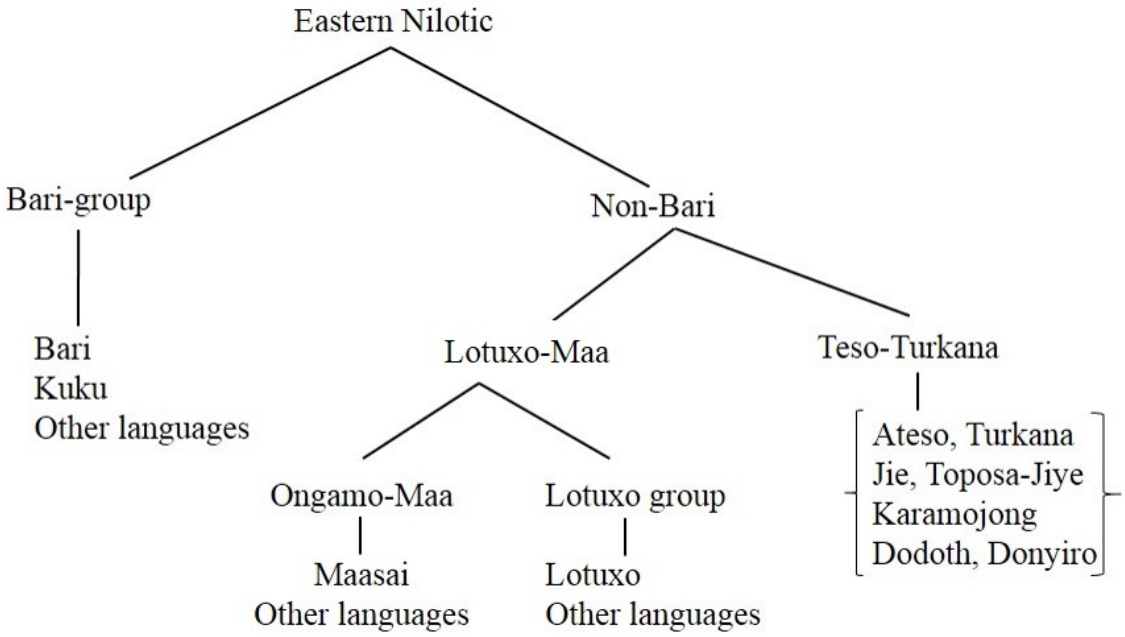


Figure 2.3: Sub-classification of Eastern Nilotic languages according to Vossen (1982)

The tree in Figure (2.3) represents the position of Ateso within the Eastern Nilotic branch based on its syntactic typology. Just like other languages in the Teso-Turkana sub-branch, Ateso is a verb initial language. It is VS/VO structured, with the verb as the core element in a clause. The verb heads both the transitive and intransitive clause. This linguistic characteristic is also pointed out by Dimmendaal (1983b), who argues that a core feature of most languages in the Teso-Turkana branch is their status as verb-initial languages, a feature that is also found in Southern Nilotic languages. However, the Bari group of Eastern Nilotic and the Datooga group of Southern Nilotic are not verb-initial nor are the Western Nilotic languages, which have a Subject-Verb-Object order.

Following Friedrich von Schlegel (1808), August Wilhelm von Schlegel (1818), and Wilhelm von Humboldt ([1822] 1985), Ateso, like other Nilotic languages is classified as an agglutinating language. This is particularly the case for verb forms, where prefixes and suffixes are added to

the root to express grammatical meanings. These prefixes and suffixes index person, number, tense, aspect and agreement, as well as verbal derivations. Derivational forms are marked segmentally while inflectional categories have dedicated markers, either segmentally or supra-segmentally as expounded in chapter seven and eight, respectively.

Both the genetic and typological classification place Ateso within the Nilotic group. Ateso has a greater genetic affiliation to Turkana and Toposa, both of which belong to the Eastern Nilotic branch. The VS/VO clause constituent order is a property on which Ateso genealogical and typological classification is based.

2.2.2 Regional variation (dialects)

Three regional dialects of Ateso have been identified. Otaala (1981: 6) names the three dialects as Teso, Tororo and Pallisa. Matisoff (1986: 7) coined the term *loconym* to refer to a place name that has been extended to serve as the name of a language or dialect. The term is relevant to the Ateso situation as it can be applied to the three dialects which derive their names from the regions where they are spoken.

Otaala (1981: 5) notes that the differences between the three dialects are very small indeed and involve mostly differences in the lexicon and pronunciation. She attributes the difference to the use of the velar /k/ in certain verb forms (Otaala 1981: 5). She illustrates this with the following examples (see the full paradigm in Appendix 2A and additional examples for Ateso Orom and Lokathan as earlier proposed by Myers-Cotton & Okeju (1973: 27) in Appendix 2B).[4]

[4] While there is a difference between phonemic and phonetic forms; and the way they are presented, this is not indicated by Otaala, in these examples, since she does not present them as they would appear conventionally. A phoneme is a particular set of sounds produced in a particular language and that which is enclosed in slashes (/…/) while phones are actual sounds produced in speech; enclosed in [square brackets]. In each the examples in (1), the ones on the left are presumably orthographic forms (I have enclosed them in angled brackets) and the ones on the right are phonemic which I enclose in phonemic brackets.

1.

Tororo dialect		Teso district dialect	
<akinyam>	/àkíɲàm/	<ainyam>	/àíɲàmà/
'to eat'		'to eat'	
<akilip>	/àkílìp/	<ailip>	/àílìp/
'to pray/beg'		'to pray/beg'	

(Otaala 1981: 6)

Looking at the data used for the present study, Otaala's dialect clustering is given preference over Myers-Cotton & Okeju's earlier proposal. Otaala's proposal allows for an inclusive classification of the observed variation in line with the sociological influences on borrowing. The Tororo dialect caters for that which is spoken by Iteso people in Bungoma and Busia counties in Kenya and those in Tororo, Uganda, while the Teso and Pallisa dialects are spoken by those who reside in the Teso and Pallisa districts of Uganda, respectively.

Information on Ateso's internal variation is crucial as it helps trace the cultural history of the Iteso and allows us to understand how the language has changed and developed over time. The current Ateso speakers' perceptions show that many can identify the differences between varieties. The speakers that I interacted with during fieldwork claimed that they could tell the region a speaker came from by the way they pronounced certain words.

The distinction between the three dialects is easily identifiable and largely limited to phonetics and lexicon. The study acknowledges the three varieties and lists them where variations occur.

2.2.3 The Iteso people's language repertoire and patterns of use

The Iteso live in two countries with quite distinct language environments and specific language contact ecologies.[5] Though English and Kiswahili are official languages in both Uganda and Kenya, there are differences between the use of these languages in Uganda and Kenya. Most people in Uganda's urban areas use English or Luganda as a *lingua franca* whereas in rural areas, English is scarcely understood. Despite Kiswahili being used by a number of people, its

[5] Language contact is part of the social fabric of everyday life for hundreds of millions of people the world over (Sankoff 2001: 638).

usage is limited (Kaji 2013: 1). In Kenya, English comes in only as a third language (after the first-language and Kiswahili) in the rural settings, while in urban areas it may be used as a second language (see Barasa 2016). Generally, languages which are spoken by neighbours of the Iteso in Uganda are: Lugisu, Lunyole, Soga, Kumam and Karamojong' while Lusamia, Lubukusu, Sabaot and (Dho)Luo are spoken by people who neighbour the Iteso in Kenya. With regard to multiligualism, in addition to Ateso, English or Kiswahili or both, either one or more of the listed languages is spoken by some Iteso.

The linguistic situation of Ateso speakers provides space for the borrowing of lexical forms from other languages. Ateso includes loan words from English, Bantu and other Nilotic languages that are spoken by people who live close to Ateso speakers (cf. Myers-Scotton & Okeju 1972). The vast majority of loan words are from English, Luganda or Kiswahili (Barasa 2016). In Uganda, for instance, much influence has been attested from English and Luganda while in Kenya, a mixture of English and Kiswahili has had major influence on Ateso (see e.g. section 3.3.6 and 4.1.2.4). This influence, for example, can be noted in clan names as discussed by Mwakikagile (2012: 147) when he writes that, "Iteso clan names reveal long-standing ethnic interactions. Names of Bantu and Northern Nilotic are found among them." The borrowed items have been integrated in the language and they contribute to the corpus of the Ateso vocabulary.

In some cases, contact led to full-scale language shift. This is described by Webster et al. (1973: 11) when they note that the early Iteso migrants who moved to the Bugwere region [in the period *c.*1821 to 1873] integrated culturally and dropped the Ateso language in favour of Lugwere. However, it is worth noting that Ateso linguistic items are also found in languages spoken by neighbouring communities. For instance, in Kumam (a Western Nilotic language) lexical items have been borrowed from Ateso due to close contact continuing still today (Hieda 2013: 1). However, the adoption of Ateso linguistic items is limited as forces of prestige and demographic prominence are not in its favour.

There are very few monolingual Ateso speakers; most of these are old (roughly above 65 years) and live in remote areas (Barasa 2016). Most young Ateso speakers grow up bilingually, with Ateso and either English, Kiswahili or Luganda being present at home. Ateso thus exists within a contact situation (Thomason 2001). English, Kiswahili and Luganda are the most prominent languages in formal education. English is prevalent not only in the formal education sector but it

is also the language of the media.[6] Surveys conducted by Bunyi (1997), Obondo (1997) and Piper (2010) suggest that the young generation is gradually shifting to English and other dominant African languages. In Kenya, there is a widespread tendency for speakers of smaller languages to shift towards Kiswahili and English. In Uganda, the language policy since independence has been exoglossic, with English as the official language; in September 2005, Kiswahili was added as the second official language, and the language policy changed formally to a mixed one (Rosendal 2010: 27). According to Nakayiza (2012: 44), although Swahili has been accorded this official status in Uganda, its official use is still highly symbolic, especially as a result of the formation of the East African Community in which Uganda is a member. Luganda and English continue to be the dominant languages in Uganda. Nakayiza (2012: 43) further observes that English and to a certain extent the majority of languages such as Luganda, enjoy a special status in the country. They are considered 'prestigious' by many citizens who choose increasingly to bring up their children in these languages.

Literacy is limited to less than half the Iteso population in Kenya and about 68% of the total population of Iteso in Uganda (UBOS 2006).[7] There are a number of publications in Ateso (e.g. the *Etop* newspaper targeting the Iteso in Uganda and the Bible). Literacy, however, is mostly in English, as well as Kiswahili in Kenya (field notes, Barasa 2015). Those whose repertoire covers more than one language tend to prefer English, Kiswahili or other Bantu languages in written communication as these are deemed to have a higher social standing within the social context (cf. Barasa, S. 2015).

The Iteso of Kenya use linguistic patterns that are different from those used by the Iteso of Uganda. Ateso speakers in Uganda switch much less and when they do they use English or Luganda phrases and lexical items which can be considered borrowings. In Kenya, code

[6] Though Ateso and Bantu languages such as Samia, Lugwere, Lunyuli, Lumasaba, and Lusoga are represented in schools, the languages most commonly used as *lingua francas* in Uganda's Teso region are Kiswahili and English (Tembe & Norton 2008: 35-36). According to the headmaster of one of the primary schools that I visited in Uganda, Ateso is used as a medium of instruction for class 1-3 though it is not taught as a subject. Kiswahili and English are encouraged as a *lingua francas* while in school and they are also taught as subjects from class 1-8.

[7] The latest estimate (October, 2012) is by the Bible Society of Kenya which puts literacy among the Iteso in Kenya at 36% http://biblesociety-kenya.org/Dev/mainfinal/?p=876. No information available to me indicates figures with regard to literacy rates by ethnicity from KNBS census.

switching usually involves alternating use of Ateso and Kiswahili in the same conversation (Barasa, S. 2015). English, as is the case with many former British colonies, is spoken mainly by the educated in society and serves as language of the people deemed to be high class (Adegbija 2001: 285). Although Ateso features in electronic and social media, English and Kiswahili are the most widespread in electronic media (see e.g. Barasa, S. 2015). English, Kiswahili and Luganda languages are predominant in all public settings and have all but marginalised Ateso and other non-dominant languages (Barasa 2016).

Even though Ateso is not officially prohibited by either the Ugandan and Kenyan governments, most schools actively suppress the use of Ateso [with measures such as that outlined below], as an L1, on their premises (Gacheche 2010: 6). Furthermore, despite the changes in government policies for both Uganda and Kenya that encourage the use of L1 in the first years of primary schooling, there are no clear guidelines on its implementation. During fieldwork, I visited two primary schools within the Teso region in Kenya where I observed that the use of Ateso was discouraged and learners who used it were punished either by the teachers or selected pupils who had been chosen to guard against 'mother tongue' speaking, a case of the violation of the government policy by those particular schools. The medium of instruction in both schools was either Kiswahili for lower primary, and Kiswahili or English for upper primary. This may lead to a gradual decrease in the number of Ateso speakers, impeding intergenerational transmission.[8]

In church, the main languages used are English, Kiswahili and Ateso. Ateso is used for the oral presentation of the church teachings while Kiswahili or English in Kenya, and English in Uganda are mostly the written languages of the Bible. Even though Ateso has a written Bible that was published in 1961, the translation is obsolete and there are few copies available. It is for the former reason that the Bible Society of Kenya seeks to raise funds for a new translation project.[9] The common practice is that pastors read the Bible in Kiswahili or English and then attempt to translate the text into Ateso when preaching to congregations that are linguistically homogenous.

The Iteso people are organized into clans and kinship groups, which form the primary social organization (Mwakikagile 2012: 87). These social organizations define the cultural constraints

[8] Lack of intergenerational transmission is cited by UNESCO as one of the threats to the existence of a language.

[9] http://biblesociety-kenya.org/?page_id=754

and taboos that guide the use of language. Most vocabularies, especially those related to body parts are only used among members of the same kinship groups. Elders are seen as guardians of the language and their conversations are often garbed with proverbs (field notes, Barasa 2015).

The geographical, historical and socio-economic overview helps in understanding the influences on the present situation and development of Ateso.

2.3 Literature review

In this section, the literature on Ateso will be reviewed. First, the publications specifically dealing with Ateso are discussed followed by publications on other Eastern Nilotic languages.

2.3.1 Previous research on Ateso

Various aspects of Ateso have been studied. Despite the existence of some publications, the present study acknowledges Noske & Otaala's (2006: 6) observation that the literature on Ateso is incomplete and outdated. Besides, most of the pioneer writers of Ateso were missionaries and the description of basic grammar was a priority in producing materials serving to the conversion of Iteso people to Christianity (Pawlikova-Vilhanova 2011: 264).

Earlier linguistic publications include: *A Handbook of the Ateso Language* (Kitching 1915) and *An Introduction to Ateso Grammar* (Hilders & Lawrance 1957). The two grammatical sketches were intended for paedagogical work targeting foreigners who may want to learn the basic structures of the Ateso language. These linguistic publications therefore focus on the basic elements of grammar, and the grammatical sketches provide a rudimentary description of linguistic categories such as nouns, pronouns, adjectives, adverbs and verbs.

An *English-Ateso*, *Ateso-English Vocabulary* by Hilders & Lawrance (1958) and the *New Testament Translation of the Bible into Ateso*, published in 1961 constituted essential sources for this study. Kiggen's (1953a & 1953b) a dictionary of *English-Ateso* and *Ateso-English* were also important references. Altogether, the grammatical sketches, wordlists and other linguistic publications on Ateso, as itemised above, provided basic concepts, tools and some data that were still valid to the present work.

However, the missionaries as well as earlier explorers, government officials and a number of linguists have received considerable criticism from linguists for describing African languages from a Eurocentric perspective and for being descriptively inadequate (Deumert et al. (to appear)). Most of their publications are simply wordlists and they miss out crucial details pertaining phonetic contrasts, tonal marking and phonemic realisations of lexical forms in the language. As will be demonstrated in this study, tone plays a significant role in Ateso with respect to grammatical levels. Existing publications by pioneers in the study of Ateso did not provide extensive information on the aspects of language such as phonology, morphology and syntax. For instance, most aspects of phonology (i.e. phoneme inventory, sound patterning, syllable structure and various phonological processes) have not yet been analysed. The present study focuses on general phonological issues such as phonemic inventory, the syllable structure, tone assignment and other general phonological processes that apply in the language.

The first significant study on Ateso was conducted by Otaala in her Master's Thesis on verb derivation (Otaala 1981). Otaala focuses on phonological and semantic aspects of Ateso derivational verb morphology. She discusses derivational processes such as the ventive, itive and applicatives. Otaala identifies the following verb derivational morphemes:

2. /-ʊn/ for the ventive
   /-ar/ for the itive
   /-akɪn/ for the applicative
   /-ɪ/ for the instrument
   (Otaala 1981: 34-35)

Otaala (1981) categorically stated that the verb derivational processes together with tone play an important role in Ateso and proposes further research on these aspects. The present study focuses on tone and other verb derivational processes, such as the iterative and voice which were not included in Otaala's discussion. It elaborates on the description of the verb derivational forms and challenges the analysis of Otaala on some derivational components in chapter seven. The present study also provides a substantial analysis of the causative and shows the co-occurrence of the various verb derivational processes.

Noske & Otaala (2006) proposed an electronic text database for Ateso. This will include data from the Ateso language newspaper entitled, *Etop,* published by the Ugandan daily (see above). Frequently discussed in *Etop* are attacks of the *Lord's Resistance Army (LRA)* - a rebel group in Uganda led by Joseph Kony – on the Iteso. The present description offers data that will be presented to the electronic database for use by linguists.

Barasa (2012) focused on the analysis of tense and aspect in Ateso using the Minimalist Program Approach. This work might be considered the most recent linguistic research on Ateso. The work centered on the analysis of tense and aspect, ultimately testing the application of the Minimalist Program to the two concepts. Barasa's (2012) work, however, is confined to the analysis of tense and aspect, thus leaving out modality. Yet, as this thesis will show, none of the three categories can be analysed in isolation. This study shows how the three categories are encoded in the language by providing a detailed account of the tense, aspect and mood system.

Tucker & Bryan's (1966) book, which provides a classic survey on non-Bantu languages of North-Eastern Africa, is a valuable reference for the present study. Though the volume focuses on the interrelationship of linguistic constituents in the Nilo-Saharan family, specific information on morphological units of Ateso is cited in the volume. Sketches on units such as person and number marking, derivational possibilities for nouns and verbs constitute an important starting point, and help to advance the discussion of these components.

Despite Ateso being under-studied to this date, some of the subgroups of the Teso branch of the Eastern Nilotic language group have been documented. The existing documentations, which serve as useful reference for the present study, are elaborated in the next sub-section.

2.3.2 Studies on Eastern Nilotic languages

Major linguistic literature on the Teso-Turkana sub-group consists of books and articles written by Schroeder and Dimmendaal. Schroeder (2008) is an important contribution to the morpho-syntax and discourse features of Toposa, an Eastern Nilotic language spoken by approximately 200,000 people in the South-Eastern part of the Republic of South Sudan. Schroeder analyses the verb morphology, the word order of finite and non-finite clauses, as well as the tonal case assignment in Toposa. This information provides an important reference point in the analysis of the syntactic system of Ateso. Schroeder also investigates the pro-drop parameter in subject and

object position and further notes the relationship that exists between discourse related concepts (i.e. topic and focus) and how they influence word order in Toposa.

This is similar to what Dimmendaal (1983b: 19) establishes as the constituents that are allowed for Turkana basic core sentences. According to Dimmendaal, the permitted constituents are: V(S), V(S)O_1, VO_1(S), V(S)O_2, VO_2(S) and V(S)O_2O_1 (where S=subject, O_1=primary object, O_2=secondary object). Accordingly, all transitive clauses in Turkana have an overt N or pronoun object.

Schroeder (2008) formulates the following suggestions with regard to sentence structure and language typology of Toposa. Firstly, the sentence structure is determined by multiple feature checking processes, driven by an interaction of morphology, syntax and discourse features. Secondly, these interrelationships explain the occurrence or absence of NP subjects, direct objects, and applied objects which indicates that there is some tendency for the absolute (S/O) category to be expressed by an NP after the verb and thirdly, complex relationships between morphology, syntax and discourse are displayed through passive, the reflexive, subject prefixes in the verb and the applicative and causative.

Linguistic publications on Toposa use an approach that can be applied to the analysis of syntactic structures of Ateso. Lexical and grammatical peculiarities of Ateso are complex and thus reference to previous work on a language that belongs to the same family as Ateso was an important step in the identification and analysis of these elements. Syntactic characteristics of the two languages can be compared using a different framework. The extensive study on Toposa was also relevant to the present study as it provided insights into the verb morphology and syntax of a language that falls within the same family as Ateso.

In addition, the study benefits from articles on the analysis of the *Voicesless Vowels in Toposa* and *Vowel Harmony in Toposa* (Schroeder & Schroeder 1987a and 1987b). In the two articles, the authors examine how voiceless vowels are realized in Toposa and describe the vowel harmony system based on tongue root with a hierarchy of dominance. These two articles provide a point of reference for the discussion of the phonological processes which are comparable to that of Ateso. Also, the present study benefits from an article on clause chaining in Toposa: this explores the pragmatic routines that occur in clause chaining (Schroeder 2013). This study tests

the validity and universality of some of the claims made about the phonological processes and clause chaining in the Teso-Turkana language group as well as present additional properties.

Dimmendaal (1983a) worked extensively on Turkana.[10] He analysed the phonetics, phonology, morphology and syntax, and published a grammar of the language. Dimmendaal has also written a number of articles on Turkana, dealing with, among others, topics in Turkana, prominence hierarchies and Turkana syntax, the verb paradigms in Teso-Turkana, attitude markers, conversational implicatures and Turkana speech acts (in Dimmendaal 1981, 1983 (b, c), 1985, 1991, 1996 and 2007). Dimmendaal's book (1983a) is relevant to the present study in two respects: firstly, the present study follows a categorisation of grammatical aspects that is broadly similar to what is found in his volume. Dimmendaal's grammar thus serves as a model for the description of Ateso. Secondly, this documentation and articles have guided the present study on the important aspects of the language. The present study also contributes to the real insight that makes Ateso's linguistic structure unique and different from the other languages in the Teso-Turkana group.

By discussing the two books by Dimmendaal (1983a) and Schroeder (2008) together with the articles produced by the two authors, gaps in the Nilotic studies are highlighted and new avenues for research established. Lack of information on nominal derivation, diminutives, augmentatives, numerals, pronouns, possessives, adjectives and negation are matters that called for a comprehensive description of these aspects. The various works offered an advantaged starting point for research on Ateso, permitting the present study to provide a detailed description and analysis of various aspects of the language.

With a long time-span in the historical divergence of Nilotic languages, considerable changes must have taken place. The outcome of the present study might be used by linguists interested in comparative studies once work has been done for other languages in the Nilotic group.

In summary, the linguistic literature on the Teso-Turkana group reviewed was of great relevance to the present study as it suggested concepts that are essential for the description of Ateso. The literature review section offers a fairly exhaustive picture of the writings available in this group,

[10] Turkana is an Eastern Nilotic language spoken by people who reside in North Eastern Kenya and parts of South Ethiopia. According to 2009 Kenya Population Census, Turkana speakers are estimated at 989,000.

clearly showing that an Ateso grammar would be a useful addition to the body of literature. The literature review also points to the gaps in the study of Ateso and this forms the rationale for this study.

Lastly, the practical orthography currently used in Ateso publications is introduced in the following section. The alphabet, which was developed by the Ateso Orthography Committee in 1964, is critically reviewed.

2.3.3 The Ateso orthography

The present work establishes and adopts a phonemic orthography. It is used for the presentation of data and intends to aid linguists who have interest in Nilotic languages to access phonemic information on Ateso. Thus, the existing orthography is expanded on the basis of this study's phonological analysis.

Orthography is a method of representing a language or the sounds of a language by written symbols or letters. Frawley (2003: 386) defines orthography as a visible and readable representation of a language. There exist representational conventions underlying a specific script, and these also relate to a particular socio-historical framework.

In 1964, the Ateso Orthography Committee established the Ateso letters of the alphabet and rules for spelling. The orthography consists of 22 letters. Twenty letters are presented in the Standard Roman characters with the addition of <ng'> and <ny> to complete the list. The orthographic representations are placed between angled brackets (as in <x>) when there is need for differentiation. Although tone has grammatical implications in Ateso, diacritics are not used to show vowel tone. The orthography does not also distinguish between [+ATR] and [-ATR] in the vowels. The 22 letters of the alphabet established as customary spelling system for Ateso are:

Vowel graphemes: <a e i o u>
Consonant graphemes: <b c d g j k l m n ng' ny p r s t w y>

Based on the analysis presented in this thesis, I suggest the inclusion of the additional graphemes <sh> and <nd> to the graphemes established by the Ateso Orthography Committee. The grapheme <sh> is phonetically realised as a post-alveolar fricative, [ʃ]. The grapheme <nd>

represents a voiced alveolar prenasalised stop. It occurs phonemically as a separate syllable based on the sonority hierarchy explained in chapter three on phonology. The examples with <nd> sequence are found in words borrowed from Kiswahili, a Bantu language. The addition of the two letters brings to 19, the number of consonant letters proposed for Ateso. The addition of <sh> and <nd> is an improvement to the number of letters proposed by the Ateso Orthography Committee.

Together, there are then 24 letters of the alphabet, that is, <i e u o a> and <b c d g j k l m n ngˈ ny nd p r s t sh w y> where the diagraph <ngˈ> represents the velar nasal [ŋ], <ny> represents the palatal nasal [ɲ], <sh> represents the fricative [ʃ], <j> represents a palatal stop [ɟ] and <y> is an alveo-palatal glide [j]. The letters <h q v x> and <z> do not exist in Ateso orthography.

To maintain the phonemic contrast between [+ATR] and [-ATR] vowels, the high front vowels /i, ɪ/ are consistently written as <i, ɪ>. The high back vowels /u, ʊ/ are represented as <u, ʊ>, respectively, in this description, but it is proposed that they should be written as single vowels for lax vowels and that the tense vowels to be signified by orthographic doubling.

The orthography used in this thesis is a part of a practical writing system already in use on both sides of the international border where Ateso is spoken. However, the orthography also incorporates some refinements that are a result of the present study. For readability and simplicity, all the letters, including the ones attested in this study are proposed for use in the development of literacy material. Throughout this thesis, words in the proposed practical orthography are written in italics and appear in angled brackets.

So far, there is no agreement among those who developed orthographies for African languages as to whether to represent tone in the orthography or not (Koffi 2014). The present study suggests a representation of tone in the practical orthography. Since tone plays an important role in many African languages, future studies on tone marking in the orthography of these languages will suffice.

With the linguistic classification and basic information on the language in mind, the question at hand is: What data collection methods best fitted the present study? How was the data analysed? The next section presents the data collection methods and outlines the analytical approach.

2.4 Research methodology

The grammar presented here is based on language data collected and analysed as discussed in section (2.4.1) and (2.4.2), respectively. Ethical considerations are presented in sub-section (2.4.3) of this section.

2.4.1 Data collection

Data used in this thesis comes from a variety of sources. Native speakers who were born in the area where Ateso is spoken and have stayed within the area for a long time (approximately 20 years or more), were interviewed in order to collect language data. This data is supplemented by intuitions, based on the researcher's native speaker competence. The study also includes other types of linguistic data, such as utterances gained from working with experimental methods, and texts.

The following criteria were used to select the consultants: location (birth place and current residence), age, sex and proficiency in Ateso. By speaking to consultants, the researcher could gauge their proficiency, based on the following criteria: ability to articulate expressions of Ateso, ability to provide clear and consistent tonal distinctions in natural and elicited speech, and ability to produce speech that is free from speech impediments (Ballmer 1981: 63-64). Following these criteria, twelve people of mixed gender (male and female) and age (within the range of 28 to 69 years) were selected as consultants for this study. Table (2.2) provides a list of consultants and lists the demographic characteristics for each of them.[11]

[11] There are fewer consultants from Uganda as compared to those from Kenya owing to the difficulties (e.g. logistical and practical problems around housing and travel) that I experienced while in the field in Uganda.

Table 2.2: Main consultants

Name	Age	Gender	Occupation	Residence	Country
A	57	Male	Farmer	Ng'elechom	Kenya
B	69	Male	Retired administrator	Machakus	Kenya
C	30	Female	Teacher	Ong'ariama	Kenya
D	28	Male	University student	Alupe	Kenya
E	36	Female	House maker	Amon	Kenya
F	43	Female	Farmer	Tororo	Uganda
G	60	Female	Business	Machakus	Kenya
H	32	Male	Watchman	Malaba	Uganda
I	42	Male	PhD student	Bukedea	Uganda
J	51	Female	House maker	Asing'e	Kenya
K	32	Male	Teacher	Soroti	Uganda
L	54	Female	House maker	Bungoma	Kenya

Snowball sampling, which involved referrals from an initial contact who in turn suggested other people, was identified as the most feasible method for identifying consultants. Twelve consultants were selected since they were perceived by the community to be exemplary speakers of Ateso. All selected consultants were fluent speakers of Ateso.

Methods of data collection included direct elicitation for four hours per consultant. The interview process included elicitation of words in different categories, as well as descriptions and narrations of events where different words and clause patterns were used. A series of questions was prepared for the consultants to elicit a variety of structures for the study. Text genres included procedurals, narratives and descriptions of everyday life, oral histories and narration on herbal traditions, responses to questions and pictures or visual prompts. All data were audio recorded. In addition, free conversations among other Ateso speakers both male and female, from both Uganda and Kenya, aged approximately between 20 and 80, were recorded.

Other sources of data included reference to the various library materials on the language relevant to the study (e.g. Dimmendaal 1991 and Otaala's 1983 data in chapter four and seven,

respectively). All this was done in order to generate a solid data base for the description of Ateso. The data samples elicited were counter-checked with different speakers within the sample to ensure that the examples used for this grammar are widely accepted by the speakers.

The data included clauses and sentence structures, derived and inflectional forms of nouns and verbs plus other relevant linguistic features such as adverbs, prepositions and attitude markers. In total 200 nouns and 200 verbs with different derivations and inflections were collected as well as adjectives, prepositions and adverbs. Five narratives, two expository and two procedural texts were used to derive details of syntax. Narratives also served as a source for additional vocabulary not captured in the above mentioned elicited data.

The data used in the analysis were collected during fieldwork in Uganda and Kenya between 2014 and 2015. The present description of the language also includes field data on Ateso collected by the author in 2011 and 2013. In total, the data was collected over a period of eight months.

The use of different methods helped collect more information about variability of language as a way to improve the validity of the study. Notably, this study was based upon data collected for Ateso only but some features in the data might apply for other Teso-Turkana languages as well.

2.4.2 Data analysis

The language corpus collected during fieldwork provided data that was selected and divided into groups for use in the different chapters of the thesis. The following forms were extracted from the data: morphemes, complex word forms, tone form of the words, phrases, clauses and sentences. As explained in chapter one, the description and analysis of linguistic forms is based on consultation of a range of speakers (listed in section 2.4.1), as well as the author's own intuition and the recording of data produced by the consultants.

Using structuralism, as explained further below, the inventory of sounds in Ateso were analysed in terms of a series of contrasts. Word categories such as nouns, verbs, adjectives, prepositions and adverbs were identified and tagged according to their morphological properties and syntactic distribution. Different syntactic structures were also identified and a systematic account of their functions established. Since languages are not monolithic units, variations too were identified

and described. On the whole, the qualitative scale in judging the grammaticality and acceptability of the data was put to use for data checking and the analysis.[12]

2.4.3 Ethical considerations

In accordance with existing conventions in social research (e.g. Oppenheim 1992: 103) and that of the University of Cape Town's ethical guidelines, confidentiality of the consultants was guaranteed and no individual response is linked or attributed to the consultant's real name.[13] Since personal information such as age and occupation of the main respondents were given, names, in this study, are represented by alphabetical letters for the purpose of guarding the identity of consultants. The measures were taken in line with the increasingly extensive and elaborate regulation with regard to research that involves human beings (see Posel & Ross 2015: 2). Consent forms filled by consultants stated that participation was anonymous and that participants could withdraw from the study anytime.

Fieldwork is a complex experience and there are a number of ethical dilemmas that I encountered. The research process was personally demanding and analytically a difficult process. Despite being a member of the community, I subjected to unfamiliar behaviour of some consultants who would sometimes make offensive remarks such as the researcher being mean with funds. I also encountered personal risks due to the insecurity in some parts of the research area and the risk, to secure and maintain social relationships in order to facilitate fieldwork.

To help ease the process, interactive methods, involving elicitation interviews with consultants and participant observation within the context within which the language occurred, were preferred for the data collection. This facilitated access to and collection of language data that was more natural and spontaneously produced. All the participants consented to the use of data that was generated from them during the research period.

[12] Qualitative scale involves what a researcher has seen, heard, and read so as to make sense of what (s)he has learned (Glense & Peshkin 1992: 127). The scale helps provide an explanation of the different linguistic phenomena found in the language.

[13] http://www.humanities.uct.ac.za/sites/default/files/image_tool/images/2/HumEthicsGuide.UL-28.08.13%5B1%5D.pdf

I was cognizant of the fact that fieldwork is a social act which carries with it a moral responsibility (Geertz 1968). To this end, participants received cash payment as reimbursement for their time. The research will also provide copies of the published study as feedback to the language practioners in the community since the language belongs to the community, those with a primary right to the recordings and analysis of it are its speakers (Rice 2006).

After explaining how data was collected and analysed, and the ethical considerations, the following section is a discussion on the theoretical orientation for the analysis and description adopted for Ateso. The section provides a summary of the theoretical framework that applies to this study. It includes concepts and ideas which are relevant for the description and analysis in the present study.

2.5 Theoretical framework

For a comprehensive description of Ateso, a broadly structuralist framework is adopted. The structural approach originates from the work of the Swiss linguist de Saussure, who some consider to be the 'father' of modern linguistics (de Saussure [1916] 2011). It began with the posthumous publication of the *Course in General Linguistics* (1916), which was compiled from lectures by his students. Structuralism is based on the assumption that language is a self-contained structure, the elements of which derive their existence and value from the distribution and oppositions in texts or discourse. Groden & Martin (1994: 697) note Saussure's three basic assumptions as follows:

1. "The *systematic* nature of language, where the whole is greater than the sum of its parts."
2. "The *relational* conception of the elements of the language, where linguistic 'entities' are defined in relationships of combination and contrast to one another."
3. "The *arbitrary nature* of linguistic elements, where they are defined in terms of the function and purpose they serve rather than in terms of their inherent qualities."

Whereas Haspelmath (2010) advocates a framework-free grammatical description, Aikhenvald (2016) and Pawley (2014) argue that all descriptions are to some extent theory-specific and there is nothing like framework-free grammar. According to the two latter scholars, what are seen as framework-free grammatical descriptions are indeed grounded on 'basic linguistic theory', i.e. a development of structuralism. This 'basic linguistic theory' is proposed for description by

linguists (e.g. Dixon 2012, Dryer 2006) and as such, most comprehensive grammars are cast in this typologically informed framework based on cross-linguistic inductive analyses of numerous languages (Aikhenvald 2016). Thus far, of interest to most linguists is being comprehensive and to provide as much detail as possible. The best framework analyses the language in its specific form and allows the use of familiar concepts that are used in other languages.

The present work thus uses the structuralist framework which is familiar to most linguists. The framework is sufficient for analysis of elements at their different linguistic levels, i.e. phonemes, morphemes, word classes and sentence type (cf. Richards & Schmidt 2010: 563). As Aikhenvald (2016: 6) puts it, a grammar should capture "the unique genius of the language" by outlining its distinctive features within the linguistic levels such as the phonology, morphology and syntax. Accordingly, she lists a number of principles that underly a successful grammar as: clarity of presentation, user friendliness, explicitness, presenting alternative solutions and the quest for explanation. The choice of the structural framework ensures that the five principles converge and that the features of Ateso are outlined without being so esoteric.

Generally, a reference grammar should last beyond the lifetime of the author (Aikhenvald 2016: 6). Rather than analysing the grammar within restrictive theoretical frameworks of the generative type, the structuralist framework is used for analysis of Ateso as it is less restrictive than, for example, Minimalism (Xia 2014: 561). Its primary advantage is that it emphasises the need to describe language on its own terms and does not impose categories found in other languages in the description. Structuralism allows to present data in a form that is accessible to scholars from different theoretical traditions. It is also less likely to lead to a distorted description of a language.

Evans (2014: 1) highlights the challenge faced by all grammar writers where a grammar that addresses universal issues, may not be detailed enough for specialists; while a highly detailed description written in a specialised areal framework may be incomprehensible to those outside a particular tradition. Evans further outlines the goals of grammar writing as follows: to respect the distinctiveness of the language, to treat a grammar as a system, to give a language-internal justification for structures and patterns found, and is consistent with one of the 'Boasian trilogy'. The 'Boasian trilogy' is a proposal for a trio-division of labour in descriptive linguistics. It '-envisages a documentary trilogy containing grammar, dictionary and texts, between them

amounting to a fairly complete portrait of the language…' (Evans & Dench 2006: 10). It is for the listed merits that most linguists have used this method in the description of language features. Since there are restrictions on the length of doctoral dissertations, it is not possible to include texts and/or a lexicon in the present descriptive grammar.

2.6 Conclusion

This chapter gave the sociocultural background of the Iteso people and the sociolinguistic aspects of Ateso. It also presented a review of the literature, the theoretical framework and methodology adopted for collection and analysis of data.

Even though the history and sociocultural realities of the Iteso people have received scholarly attention, very few studies have looked into the Ateso language. The analysis and description provided in this thesis addresses the phonology, morphology and syntax of this so far only scarcely described language. The primary source of data for description of these grammatical categories of the language was data elicited from individual Ateso speakers.

The literature review section of the thesis is not only a review of all existing works on Teso-Turkana, but also a selective review of linguistic studies on other Nilotic languages. Studies that provide information on Iteso migration patterns, social and cultural beliefs have also been reviewed as far as they contribute research results that are relevant for the description of the Ateso language and its use.

Chapter Three: The phonology of Ateso

This chapter starts by introducing the phonological inventory of Ateso. Generalisations on the distribution of the distinctive speech sounds will show the underlying principles on its sound patterns. A contrastive analysis of both vowels and consonants will be employed to identify sounds and sound patterning. The available data is used to identify the syllable structure, the word structure, tone and other phonological units in the language as well as various processes that they undergo in a wide range of contexts.

Section 3.1, 3.2, 3.3 and 3.4 present the phoneme inventory, tone, syllables and moraic units, and vowel harmony, respectively, while vowel alternation, distinctive features of the vowels, vowel deletion, combination of vowels and consonants in words, and contextual nasalisation are introduced in the subsequent sections.

3.1 The phoneme inventory

This section will introduce and describe the phoneme inventory. Phonetic forms will be enclosed in square brackets ([…]) while phonemic transcriptions will be enclosed in slashes (/…/). Orthographic information will be provided using angled brackets (<…>). IPA-symbols are used for phonetic and phonemic transcriptions. This will aid in capturing both the surface and underlying forms of the words used for identification of morphemes.

Presentation of the vowels and consonants in examples will be as follows: the phonemic form (not enclosed in phonemic brackets) followed by the English gloss for the examples, enclosed in inverted commas (‘…’).

3.1.1 The vowels

The following list of minimal pairs or near-minimal pairs was used to establish a list of Ateso vowels. Near minimal pairs are defined as pairs which would be minimal except for some evidently irrelevant differences (Hayes 2009: 19). Hayes further notes that, by use of near minimal pairs, evidence of difference in phonemes is displayed. It is based on accumulation of forms and ruling out of all reasonable hypotheses concerning allophonic environment.

Vowels are represented with symbols used by specialists of African languages in order to embody ATR systems.[14] Two sets of minimal pairs or near minimal pairs are given as examples of the contrasted vowels within the same environment.

Ateso features a nine-vowel system phonologically. The following minimal pairs and near minimal pairs demonstrate the contrast between the nine vowel phonemes.

Example (1) illustrates the contrast between /i/ ([i]) and /ɪ/ ([ɪ]):

1. High front unrounded vowels
   àkìt ‘ear’
   á‧ kím ‘fire’

The contrast between /e/ ([e]) and /ɛ/ ([ɛ]) is demonstrated in example (2). The phoneme /e/ is realised as a mid-front close unrounded vowel while /ɛ/ is a mid-front (half) open unrounded vowel:

2. Mid-front unrounded vowels
   àdè̩kà ‘be sick (or be ill)’
   àdɛ́kà ‘disease’

Example (3) illustrates the contrast between the phonemes /u/ ([u]) and /ʊ/ ([ʊ]):

3. High back rounded vowels
   àdù̩k ‘built’
   àrʊ̩̀k ‘sung’

The contrast of the phonemes /o/ ([o]) and /ɔ/ ([ɔ]) is attested in example (4):

4. Mid-back close and (half) open rounded vowels
   àcò̩r ‘advise’
   àcɔ̩̀k ‘sweet potatoes

[14] In the IPA, ATR distinctions are technically represented by diacritics below vowel symbols (e.g. [e̩], for [+ATR] and [ɛ̩] for [-ATR] values); but this practice is not followed in this thesis.

At the phonetic level, the distinction of [a] and [ä] is evidenced by examples (5) in complementary distribution. But as argued in the following section, the presence of [ä] variant is conditioned by neighbouring [+ATR] vowels or glides, and hence it does not have phonemic status; instead, it is to be treated as an allophone of /a/.

5. Low central (or front) unrounded and mid-central rounded vowel
   [àk**a̰**n] 'hand'
   [ék**ä̰**rù] 'year'

Ateso hence has the following nine phonemic vowels: /i ɪ e ɛ u ʊ o ɔ a/. Minimal and near minimal pairs are given in order to establish the contrastiveness of the vowels. Parameters for distinction of vowels at the phonetic level here are vowel quality.

3.1.1.1 The status of the tenth vowel

Tucker & Bryan (1966: 444) note that BARI and LUTUHO have a ten-vowel system consisting of five close and five open vowels, with clearly discernible laws of vowel harmony. A similar system applies to Ateso though as mentioned later in the discussion in this section, the tenth vowel [ä] is not a separate phoneme except when it is a case of Umlaut.

Fundamentally, there is an important structural difference between the Bari group and Teso in that in the former [ä] is in structural opposition with /a/, whereas its distribution in Ateso is predictable. Unlike the other members of the Teso-Turkana group, which lost the tenth vowel */ä/ structurally as well as phonetically, Ateso retained this feature phonetically, namely after a glide within the same syllable, as in **[ètjä̰ŋ]** 'beast"; in other words, -ATR [a] never occurs after a glide in Ateso. This assimilation of the low [-ATR] vowel /a/ after a glide is also found in the neighbourhood of low vowels, if these occur, as in **[á̰kwä̰ŋä̰̰]** 'swim'. CV(C) or -VC root structures (i.e. root structures without a glide in the syllable onset) with a [-ATR] vowel [ä] do not occur in Ateso.

The second position in which the low [+ATR] vowel [ä] occurs, again as an allophonic variant of [-ATR], is between [+ATR] vowels either in the same root or in adjacent affixes as in, **[ékä̰rù]** 'year'. Accordingly, at the phonetic level one does not find words in Ateso with [a] preceded or followed by [+ATR] vowels. The following examples illustrate the phonetic realisation of /a/ and

the corresponding structural (phonemic) representation of this vowel in different positions within the word.

6.	a. [ètjäŋ]	/è-tjàŋ/	'beast'
	d. [ǎkìbwà]	/ákì-bwà/	'to hide'
	c. [ǎkìkwàŋà]	/ákì-kwàŋà/	'to swim'
	d. [ǎkìtjàk]	/ákì-tjàk/	'to divide'
	e. [àbòjàär]	/á-bòjàär/	'to stretch oneself'
	f. [ékàrù]	/é-kàrù/	'year'
	g. [àbìlà]	/à-bìlà/	'shrine'

Examples in (6) show that the vowel [ä] is not restricted to any particular position in a word. It may occur word-initially, word-medially or word-finally. This vowel may also appear in a sequence as in a verb phrase **[äbòjäär]** 'to stretch oneself'. Moreover, the vowel occurs in different word categories. However, the two conditioning factors, the presence of a glide and the presence of [+ATR] vowels are sufficient to predict its phonetic realisation in Ateso (though not in a language like Bari) hence its phonetic realisation is predictable.

The underlying [-ATR] status of root vowels phonetically realized as [ä] becomes obvious when looking at suffixes which themselves are [-ATR] underlyingly in terms of vowel harmony. As shown elsewhere in the present study (section 7.1.6.2), the itive suffix harmonizes with the preceding verb root. It is realized as -ar(^{V}) after roots with [-ATR] vowels, and as -or^{V} after roots with [+ATR] vowels. But as shown by the word átwânàrį̀ **[ǎtwâ̰nä̰rį̀]** 'to die', for example, the suffix is not -or^{V} but instead the phonetically predictable variant of /a/ because the root has an initial glide.

Consequently, there are ten vowels phonetically, but nine phonemically - meaning that throughout the rest of the grammar it suffices to use one symbol ("a"), unless there is a representation of phonetic realisations (in which case "ä" is used).

The structural loss of *ä (as a distinct phoneme) in Ateso is confirmed by historical-comparative data. Dimmendaal (2012a: 157), in his comparative study, observes that cognates of the vowel [ä]; in the two branches of the Teso-Lotuko-Maa group, i.e., either in Lotuko-Maa or Teso-Turkana, confirm the claim that *ä shifted to and merged with **a** in lexical roots." Thus, [ä] goes

back to the original phoneme */ä/, but is now entirely predictable from a synchronic point of view in Ateso. Compare the Ateso examples with their cognates in Bari and Lotuko as adapted from Dimmendaal (2002: 158).

7.

Bari		**Lotuko**	**Ateso**
bwät	'skin' (V)	-bwät 'skin' (V)	äkibwätä (V)
lwäk	'rescue'	-lwäk 'rescue'	äkilwäk
	(See Dimmendaal 2002, for further details)		

There are some borrowed words which acquire the tenth vowel once they have been adopted into Ateso. The following loan words consist of the vowel [**ä]** in different positions, but as these examples show, it is always followed by [+ATR] vowels, and because of the spreading of this prosodic feature prefix vowels are also [+ATR].

8. a. [ènə̀nə̀sì] 'pineapple'
   b. [èpə́pə̀lị̀] 'pawpaw'
   c. [èsə́tí] 'shirt'
   d. [ə̀bə̀kúlí] 'bowl'

The words for 'pawpaw' and 'shirt' are borrowed from English while the ones for 'pineapple' and 'bowl' are loanwords from Kiswahili.

The quality of all vowels is determined by the position of the tongue as well as the tongue root. Based on this, vowels are either classed as close or open and as front or back. The shape of the lips is used to class the vowels as either rounded or unrounded. Most of the vowels are contrasted at different positions in the word. An overview of the phonemic vowels established so far with their corresponding graphemes is represented in Table (3.1) below.

Table 3.1: The orthographic and IPA representation of Ateso vowels

Orthographic Representation	**IPA**				
Upper case	**Lower case**	**(+ATR)**	**Examples**	**(-ATR)**	**Examples**
E	e	ẹ	àkìn**è** ‘goat’	ɛ̣	àp**ɛ́** s**ɛ́** ‘girl’
I	i	ị	àk**í**lè ‘milk’	ɪ̣	èdɔ́**í** ‘whip’
O	o	ọ	àɟ**ò**n**ò** ‘beer’	ɔ̣	àd**ɔ́**kɛ́t ‘ladder’
U	u	ụ	á**ú**ní ‘three’	ʊ̣	àkísʊ́**ʊ**b ‘to dwell’
A	a	[ạ̈]	**[ä̋**bói] ‘intestines’	ạ	**à**b**ɛ́** ít ‘indeed’

Diacritics for ATR qualities are illustrated in this table only. In the rest of the grammar, these diacritics will not appear with vowels. Different vowel phonemes in Table (3.1) are bolded in the examples that appear adjacent to them. The vowel [ä] is enclosed within square brackets because it is not a phoneme. All orthographic representation of the monophthongs corresponds with their vowel phonemes. Only five vowels are distinguished in the orthography. The ATR features enclosed in parentheses will be discussed in the section on vowel harmony.

From the contrastive analysis, the vowel chart for Ateso can thus be represented as in Figure (3.1) below. The chart shows a visual form of the relative positions of a set of reference for vowels quality as described by Jones (1956).

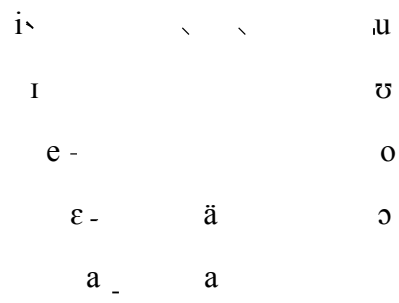


Figure 3.1: A phonetic representation of Ateso vowels based on cardinal vowel system

Vowels on the right of the trapezium are rounded while those on the left as well as the central vowels are unrounded. Ateso distinguishes between four high vowels: the high front unrounded

vowels /i/, /ɪ/ and the high back unrounded vowel /u/, /ʊ/. The mid front unrounded vowels are: /e/ and /ɛ/ while /o/ and /ɔ/ are the mid back rounded vowels. The central vowels are /a/ and [ä]. The ten monophthongs may pair, resulting into a VV form. Distribution of vowel phonemes is elaborated in section 3.1.1.2.

3.1.1.2 Distribution of single vowel phonemes

All possible vowel distinctions operate within the stem, consisting of the root and derivational suffix of a word. Looking at the available data, the vowel phonemes appear in different positions of a word. The distribution appears as shown in Table (3.2) below:

Table 3.2: Illustration of the distribution of single vowels

Vowels	Initial	Medial	Final
i	+	+	+
ɪ	+	+	+
e	+	+	+
ɛ	+	+	+
u	-	+	+
ʊ	-	+	+
o	+	+	+
ɔ	-	+	+
a	+	+	+
ä	+	+	+

The symbol "+" indicates occurrences of features, whereas, "-" indicates no occurrence. All vowels appear in the medial position and in word-final contexts as well. Three [ʊ, ɔ, u] rounded vowels are limited in their distribution as they do not occur word-initially, but are confined to word-medial and word-final positions. The rest of the vowels appear in all positions. Appearance of vowels in different word positions is thus influenced by their quality.

3.1.1.3 Voiceless vowels

Ateso, like Turkana and Toposa, and probably all other languages in the Teso-Turkana group, has voiceless vowels.[15] This is affirmed by Dimmendaal & Breedveld's (1986: 2) earlier

[15] Dimmendaal (1982) used the term "non-voiced" vowels in describing voiceless vowels in Turkana because according to him the position of the vocal cords, when producing these vowels, is comparable to that of their position with "whispered speech" rather than with the production of voiceless consonants.

assertion that, languages closely related to Turkana, like Toposa and Ateso, also have non-voiced (de-voiced vowels). All the voiced vowels have voiceless counterparts strictly occurring word-finally before a pause, at the end of the sentence or when standing alone. Consider the following examples in (9).

9. a. àmɔ̀tɪ̥ 'pot'
   b. àmòrʊ̥ 'stone'
   c. kwàpʊ̥ 'down'
   d. ábɔ́kɔ̥ 'I have dug (a hole)'
   e. àŋáìtɪ̥ 'blade of grass'
   f. átwânàrɪ̥ 'to die'
   g. écámúnétɛ̥ 'they agree'
   h. àɛ̀pɛ̥ 'axe'
   i. àkélḁ̀ 'teeth'
   j. àwùdɔ̥ 'liquid cooking oil'

After a nasal, the voiceless vowel is not pronounced at all. However, one knows that they are there structurally because they are pronounced as short voiced vowels whenever another word follows them as it is shown in (11) and (12). A list of words with nasals preceding voiceless vowels is provided in (10) below.

10. a. àkânɪ̥ 'hand'
    b. èpúgánɪ̀ 'leader'
    c. àkí-kwâŋḁ̀ 'to swim'

As shown by Dimmendaal & Breedveld (1986: 7) for Turkana, these final vowels are voiced before another word, but the duration of such "semi-mute vowels" (as they were called by Tucker & Bryan 1966: 4) is shorter than with corresponding vowels that remain voiced before a pause. Consider the following Turkana examples:

11. ɛmal̲i kɛŋ ‘his or her arrow’ 50ms
ŋituel̲i koni ‘your calabashes’ 60ms
akarɛ̲ kɔsi ‘your calabashes’ 50ms
ŋabɛrʊ̲ nugu ‘these women’ 60ms
(Dimmendaal & Breedveld 1986: 5)

Dimmendaal & Breedveld (1986) use the diacritic mark on the vowel to indicate the voiceless vowels that are voiced before another word. In Ateso, whenever a demonstrative or any other word follows a word with a vowel which is devoiced before a pause, such vowels are voiced. For illustration, demonstratives are used to show the voicing of voiceless vowels in example (12). These extra short vowels, which are devoiced before a pause, are put in brackets.

12. a. àmɔ̀t(í) nà ‘this pot’
b. àmòr(ú) lò ‘that stone’
c. àkân(í) nù ‘these hands’

Voiceless vowels may be preceded by any of the consonants and are followed by a word beginning with a consonant or vowel sound. In the latter case, it is voiced. Moreover, voiceless vowels share ATR features of the preceding voiced vowels. Apart from this, they do not share any phonological features, (e.g. in the word for **àkélạ̀** ‘teeth’, the voiceless vowel is preceded by a close mid vowel). They can either be [+ATR] as in (9b), or [-ATR] as in (9d) above. It then follows that the ATR quality of the voiced vowel influences the prominence (more voicing) of the voiceless vowels. This feature is also noted in Toposa where a voiceless vowel with the feature [+ATR] is slightly more prominent than its [-ATR] counterpart (Schroeder & Schroeder 1987a: 18).

All and only final vowels with opposite tone from the preceding TBU are predictably devoiced (see also Dimmendaal & Breedveld 1986: 7). Since no phonetic instruments are used to measure the quality of the consonant preceding the voiceless vowels, the area remains open for research.

Voiceless vowels have a hardly audible phonetic realization. However, this does not imply that all Ateso words written with final C in the practical orthography are underlyingly vowel-final. In fact, some are underlyingly C-final. Some words end in a CVC syllable structure as illustrated by many examples in the present chapter. Except for the examples in this section, where the

voiceless vowels are transcribed phonetically, voiceless vowels are presented between parenthesis in the present study so as to mark their separate status from corresponding vowels which remain voiced before a pause, for example, the **(à)** in **àkél(à)** 'teeth' is a voiceless vowel.[16] Also, they are written explicitly as (V) in order to stay as close to the phonetic surface as possible.

3.1.2 The consonants

By listening to the pronunciation of the available data, plain consonants of Ateso are identified as [b c d g ɟ k l m n ɲ ŋ p r s t ʃ w j]. The eighteen consonants are presented in the phonemic inventory in Table (3.4). Since very few minimal pairs exist in Ateso, consonants are established in a contrastive environment by use of either minimal pairs or near-minimal pairs.

3.1.2.1 Consonant contrasts

The contrast of minimal or near-minimal pairs establishes the phonological status for any pair of sounds. In the consonant contrast that follows, the first set will be between paired consonants and the second set will be the unpaired consonants, namely those that are not members of the voiceless/voiced pairs. The unpaired consonants with non-corresponding counterparts in voicing will be contrasted with consonants which share the same place of articulation. Consonant phonemes are attested in the following order: stops, nasals, fricatives, glides and approximants.

The phonemes /p/ ([p]) and /b/ ([b]) are contrasted in the minimal pairs below. The minimal pair, in example (13), relates to the presence versus the absence of voice on the consonant segments. The phonemes attested are realised as voiceless unaspirated bilabial stop /p/ ([p]) and the voiced bilabial stop /b/ ([b]).

13. Voiceless/voiced bilabial plosives
    à**b**ói ‘intestines’
    à**p**ói ‘rabbit’

By use of near minimal pairs, the phonemes /t/ ([t]) and /d/ ([d]) are established. Voice distinctions used to attest the two phonemes are evidenced by the examples below.

[16] The under-ring is used as a phonetic marker of devoicing. It is placed under the devoiced phonetic vowel sound.

14. Voiceless/voiced alveolar plosives

    é**d**àù ‘(s)he has finished’

    è**t**àú ‘heart’

The language distinguishes between a voiced alveolar plosive and the voiced palatal glide. The contrast in the minimal pairs below establishes the phonemes /d/ ([d]) and /j/ ([j]).

15. Voiced alveolar plosive and voiced palatal glide

    à**d**àʊ̀n ‘to finish’

    à**j**àʊ̀n ‘to bring to the speaker’

Since it was difficult to find minimal pairs for the phonemes, /k/ ([k]) and /g/ ([g]), they are attested by use of near-minimal pairs. The /k/ is realised as a voiceless unaspirated velar plosive while /g/ is its voiced counterpart.

16. Voiceless/voiced velar plosives

    é**k**òrìt ‘(s)he dug’

    ɛ́gàrìt ‘it did not fit’

Ateso distinguishes between a voiceless palatal plosive and a voiced palatal plosive. The contrast in the near minimal pairs below establishes the phonemes /c/ ([c]) and /ɟ/ ([ɟ]).

17. Voiceless and voiced palatal plosives

    à**c**ɔ̀k ‘sweet potatoes’

    à**ɟ**ònò ‘beer’

Using minimal pairs, the phonemes /c/ ([c]) and /t/ ([t]) are established. This is illustrated by the following examples.

18. Voiceless palatal plosive and voiceless alveolar plosive

    àkí**c**àk ‘to throw’

    àkí**t**àk ‘to copy’

The language also distinguishes between the voiceless palatal plosive /c/ ([c]) and the voiceless post-alveolar fricative /ʃ/ ([ʃ]). The distinction of the two phonemes is evidenced by the following near minimal pairs.

19. Voiceless palatal plosive/post-alveolar fricative

à**c**èl ‘shout’

é**ʃ**àl ‘(s)he disturbs’

Near minimal pairs are used to contrast the phonemes /m/ ([m]) and /n/ ([n]). The distinction between the voiced bilabial nasal /m/ and the voiced alveolar nasal /n/ is evidenced by the examples in the contrastive distribution. The two syllables contrast in syllable initial positions.

20. Voiced bilabial/alveolar nasals

à**m**àtá ‘to drink’

à**n**àpá ‘to dress’

The two sets of minimal pairs below are used to establish the phonemes /ɲ/ ([ɲ]) and /ŋ/ ([ŋ]).

21. Voiced palatal/velar nasal

èmɔ̀**ŋ** ‘bull’

émó**ɲ** ‘(s)he cries’

Further, near minimal pairs are used to establish the contrast between the phonemes /n/ ([n]) and /ɲ/ ([ɲ]).

22. Voiced alveolar/palatal nasal

á**n**ɔ́m ‘I hit’

á**ɲ**àm ‘I ate’

The place of articulation is the contrasting feature for two consonants as illustrated in example (23). Near minimal pairs are used to establish the phonemes /s/ ([s]) and /ʃ/ ([ʃ]). The phoneme /s/ is realised as a voiceless alveolar fricative while [ʃ] is the voiceless post-alveolar fricative.

23. Voiceless alveolar/post-alveolar fricative

àpé**s**é ‘girl’

èkò**ʃ**èt ‘tail’

The phonemes /w/ ([w]) and /j/ ([j]) are identified by contrasts in the examples in (24). The voiced bilabial /w/ involves an articulation similar to /u/, where the lips are rounded and the back

of the tongue raised toward the velum. The voiced palatal /j/ is articulated with the front of the tongue close to the palate.

24. Voiced bilabial/ palatal glide
    á**w**álá ‘it has dawned’
    á**j**áú ‘I have brought’

Near-minimal pairs contrasting the two liquids in (25) have established the phonemes /r/ ([r]) and /l/ ([l]). The phoneme /r/ is realised as a voiced alveolar trill while /l/ is a voiced alveolar lateral.

25. Voiced alveolar trill/lateral
    ètó**r**ì ‘eagle’
    èbó**l**è ‘bible’

Consonants are distinguished in terms of features of manner, place and voice. Two sounds are minimally contrastive when they differ in just one of the three listed features. Phonologists and phoneticians generally agree that this set of distinctive features which reflect aspects of articulation or acoustic properties can be used to establish a particular contrast (Ohala 2005, Stevens 2002, Hall 2001). Distinctions presented for Ateso consonant phonemes are evidenced by the examples in the contrastive units. The most robust of the distinctive features in this analysis is the voicing contrast. In phonetic terms, the phonation terms for contrast are voicing and voicelessness. Consonants occur as stops, nasals, fricatives, approximants and glides. The phoneme which is a single element accounts for certain features of the phonetic substance.

Table (3.3) below presents the phonemic and graphemic inventories of Ateso. This helps to clearly establish the extent to which they are similar and the discrepancies that are present between the existing orthographies and phonology.

Table 3.3: Ateso consonantal graphemes with their corresponding phonemes

Orthographic Representation				
Upper Case	**Lower Case**	**IPA Symbols**	**Examples**	
P	p	p	àkíŋɔ̀p	'to hide'
B	b	b	àtúbókín	‘to convict for’
T	t	t	àkíràt	‘to insult’
D	d	d	àdàʊ̀n	‘to finish’
K	k	k	àkítúp	‘to follow’
G	ɡ	ɡ	àgɛ̀ʊ̀n	‘to begin’
J	j	ɟ	ɟáɟà	‘aunt’
S	s	s	àkísɛ̀k	‘to pick out’
M	m	m	àkíkàm	‘to grasp’
N	n	n	àkíìnàkìn	‘to give for’
NY	ny	ɲ	àmòn	‘to cry’
NG’	ng’	ŋ	àbwàŋ	‘to crash’
SH	sh	ʃ	èkòʃèt	‘tail’
L	l	l	àpàlàkìn	‘to leave for’
W	w	w	àkíwòwà	‘to fry’
Y	y	j	àkíjàtàkìn	‘to add for’
C	c	c	àcàmʊ̀n	‘to consent’
R	r	r	àkírèrè	‘to examine’

In some of the cases there is no one-to-one correspondence between the phonemes and their graphemes. An example of the discrepancy, as explained earlier in chapter two, is the use of the sound /ŋ/, represented by <ng’>. Also, the sound /ɲ/ has its grapheme as <ny> and /ɟ/ is orthographically represented by the letter <j>.

From the analysis, Ateso has eighteen consonantal segments. The phonetic properties of the consonant segments are indicated in the following consonant chart. The sounds are represented in IPA.

Table 3.4: The Ateso consonant chart

	Bilabial		Alveolar		Post-alveolar	Palatal		Velar	
Plosive	p	b	t	d		c	ɟ	k	g
Fricative			s		ʃ				
Nasal		m		n			ɲ		ŋ
Approximant				l					
Glides		w					j		
Trill				r					

Table (3.4) shows the consonants in the language. The chart follows the conventional form of presentation where the horizontal axis provides information on the place of articulation while the vertical axis indicates the manner of articulation. Ateso distinguishes between voiceless consonants and voiced consonants. The symbols on the left of each pair represent voiceless consonants while those on the right represent voiced consonants.

Phonetically, the stop series demonstrate four distinct places of articulation; bilabial, alveolar, palatal and velar. Nasals also occur at four points of articulation: bilabial, alveolar, palatal and velar. The plosives also occur at similar points of articulation as the nasals. All the phonemes are produced with the pulmonic egressive airstream mechanism.

3.1.2.2 Distinctive features for consonants

The following distinctive features are used to define the phonological segments of the Ateso plain consonants. The symbol "+" indicates occurrences of features, whereas, "-" indicates no occurrence.

Table 3.5: Consonantal features

	p	b	t	d	c	k	g	s	ʃ	m	n	ɲ	ŋ	ɟ	l	r	w	j
Root																		
Sonorant	-	-	-	-	-	-	-	-	-	+	+	+	+	-	+	+	+	+
Continuant	-	-	-	-	-	-	-	+	+	-	-	-	-	-	+	+	-	-
Nasal	-	-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-
Voice	-	+	-	+	-	-	+	-	-	+	+	+	+	+	+	+	+	+
Place																		
Labial	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-
Coronal	-	-	+	+	+	-	-	+	+	-	+	+	-	+	+	+	-	+
Anterior	+	+	+	+	-	-	-	+	-	+	+	-	-	-	+	+	-	-
Lateral	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
Dorsal	-	-	-	-	-	+	+	-	-	-	-	-	+	-	-	-	+	-

The features [+consonant] and [-vocalic] are redundant in the distinction. All consonants have the feature [+consonant] and [-vocalic] except the glides. Glides have the feature [+consonant].

3.1.2.3 Glides

There are two glides in Ateso, the bilabial glide /w/ and the palatal glide /j/. When glides occur in words, vowels preceding and following them are [+ATR], as illustrated in (26). The [+ATR] /a/ adjacent to /w/ and /j/ in example (26) below is that which is phonetically realized as [ä]. For instance, the verb /ájárí/ becomes [äjäri] when presented phonetically.

26. a. àkíjó ‘tears’
    b. àjárí ‘to take’
    c. íjáré ‘two’
    d. díjé ‘very close’
    e. àwòkò ‘to fetch’

Glides, as illustrated by examples in (26), are firstly independent consonants, as they constitute the onset of a syllable (e.g. the syllable **ja** in the numeral **íjáré** ‘two’ has the glide in the consonant part of the CV structured syllable). Thus, a sequence of a glide followed by a vowel constitutes a syllable. Secondly, glides are analysed as consonants since a sequence of consonant followed by a glide does not constitute a single phoneme (e.g. the term **àìtwàtà** ‘dam’ has a syllable shape V.V.CGV.CV - a glide appears as a second consonant in the CGV syllable and not as the syllable peak). These are the two main reasons for analysing glides as consonant phonemes instead of the alternative analysis of presenting them as vowels.

3.1.2.4 Consonant distribution

The possible distribution of Ateso consonant phonemes within words (word-initial, word-medial, and word-final positions) is presented in Table (3.6) below. Consonants occurring before a pause, at the end of the sentence or in isolation may be followed by a voiceless vowel.

Table 3.6: Distribution of consonants phonemes

Consonant Phonemes	Initial	Middle	Final
p	+	+	+
b	+	+	+
t	+	+	+
d	+	+	-
c	-	+	+
k	+	+	+
ɡ	-	+	-
s	-	+	+
ʃ	-	+	-
m	+	+	+
n	+	+	+
ɲ	+	+	+
ŋ	+	+	+
ɟ	+	+	-
l	+	+	+
r	-	+	+
w	+	+	-
j	-	+	-

Consonants that can occur word-initially are /p b t d k m n ɲ ŋ ɟ ʃ l w/. All consonants occur word-medially; while /p b t c k s m n ɲ ŋ l r/ occur word-finally. The consonants /p t k m n ɲ ŋ l/ can occur in all positions in a word. Some Ateso words end in consonants, a manifestation of the CVC or CVVC syllable structure mostly occurring at word-final position. Schroeder & Schroeder (1987a: 18) note that Toposa, a language that is in the same family with Ateso, has traces of voiceless vowel endings with little or no phonetic realization where the vowels are either realized only in certain contexts or could be posited on an abstract level on morphological grounds expressing morphemic status. The status of voiceless vowels in Ateso has been established in section 3.1.1.3. Based on this information, some of the words that end in a consonant phonetically in fact have voiceless vowels following the end consonants.

3.2 Tone

Barasa (2012) identifies two register tones for Ateso, high and low. Further analysis on the expanded data used for the present study reveals that, at the phonetic level, four tones occur in Ateso: high, marked with an acute accent (´), low, marked with a grave accent (`), a high tone downstep transcribed with an acute accent followed by an arrow pointing downwards (´↓) and a

contour or falling tone, transcribed with a circumflex (ˆ) on the vowel. The falling tone is also referred to as High-Low (HL). All tones are associated with segmental phonemes. They are contrastively assigned to vowels in all lexical elements, meaning that all vowels carry tone. A vowel carries a single tonal element, H or L, or a sequence of two tonal elements, HL. Tonal configurations can combine freely in words; an alternative sequence of high and low tones is most common, with rare occurrence of falling tones at word ends. To show the three tonal distinctions, a set of examples is given for each tone.

27. Illustration of the three tonal distinctions

Level tones: High (´) as in	èmún	'snake'
Low (`) as in	àcɔ̀k	'sweet potatoes'
Downstep (ꜜ ´) as in	ɛ́ꜜ táʊ́	'heart'
Contour tone: HL (ˆ) as in	èpjû	'bile'

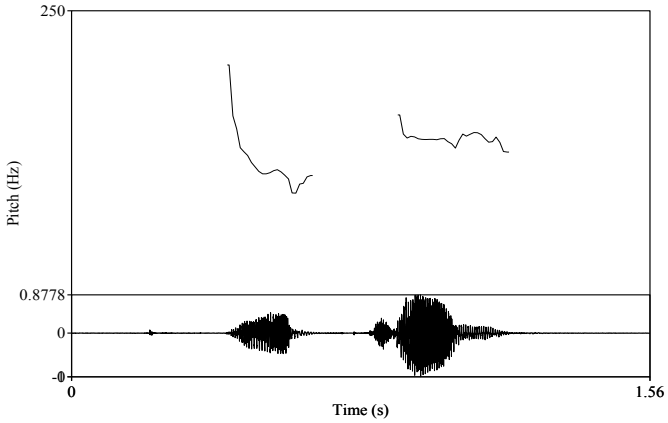
The two register tones are used freely in any tonal contexts. A vowel carries a single tonal element, High or Low or a sequence of two tonal elements, High-Low. Consequently, a tonal downstep ꜜ H occurs as a result of tonal simplification that occurs when the L is dropped out of the H-L-H sequence. The HL tone may occur at word-medial position or a word ends with it, but basically it is placed on the last syllable. The L and H may coexist in one syllable. Example (28) illustrates possible tone patterns in both monosyllabic and polysyllabic words.

28. Possible tone patterns found among the Ateso words

L	nà	'this'
H	nú	'those'
LL	àcɔ̀k	'sweet potatoes'
H-H	ídwé	'children'
L-H	èdít	'little'
H-L	íwòs	'buttocks'
HF	ècôm	'baboon'
HꜜH	éꜜ djá	'vegetables'
HHH	íkóú	'head'
H-HꜜH	ákíꜜ lé	'milk'
H-H-L	íkókù	'child'

H-L-L-L	àràìtɔ̀	‘crop’
L-L-H	àmàká	‘charcoal’
H-HL	àkân	‘hand’

Basically, a word may consist of one or different tone patterns as shown by the following spectrogram below for the word **écôm** ‘baboon’. The spectrogram is made with PRAAT, a program developed by Boersma & Weenink (2015). The word used for illustration is said in isolation.



The spectrogram presents the sound wave and pitch accent that is associated with tonal representation of a word. PRAAT is thus used in this study to double-check tone marking on the examples.

Given the importance of tone in the language, this information is *sine qua non* for its proper description. Generally, Ateso tones occur in a discrete level system, where each tone is marked on a single vowel segment with no overlaps. High and Low tones occur in both open and closed syllables. The falling tone has only been attested in combination with [+ATR] vowels, but this may be accidental. Grammatical tone for verbs mainly plays a role as a marker of tense, that is, tense is tonally marked on verbs. This will be elaborated further in the discussion of tense, aspect and mood; at the nominal and pronominal level, case is distinguished by way of tone.

The vowel forms the nucleus of a syllable. The syllable structures as well as the moraic units present in the language are discussed in the next section.

3.3 Syllables and moraic units

According to Knight (2012: 102), a syllable is a unit containing an obligatory centre part which is a sonorant; this centre is usually a vowel. At both the phonetic and phonological level, syllabic nuclei must be vowels. Vowels constitute the peak of sonority and can either be single units or function as sequences of V-V. The syllable's core elements are: the nucleus, onset and coda. A syllable is thus a larger phonological unit of utterance within which phonemes function. It has a higher phonological organisation and significant generalisations can be stated in terms of this unit.

Ateso has two different syllable structures, namely: open and closed syllables. Open syllables are made up of an optional consonant onset, an obligatory vowel nucleus and a supra-segmental tone marked on the vowels. The onset may be a single consonant or a cluster of two consonants, where a glide follows a consonant for native Ateso words. Closed syllables are made up of optional consonant onsets, an obligatory vowel nucleus which carries a supra-segmental tone and a consonant coda. There are four types of closed syllables, i.e. CVC, CVVC, CGVC and CGVVC. The maximal syllable is CGVVC, where the complex syllable onset CG is only limited to C+ [glide]. The VV in the complex syllable is a set of two (identical or non-identical) vowels in a sequence.

Every word comprises of one or more syllables. However, it is difficult to assign precise meaning or morphological functions to single syllable segments (this will form part of the discussion in the noun and verb morphology sections). Some of the words used in the examples here are based on the structure of morphologically complex words, that is, the lexical roots with whatever bound affixes that are obligatory for it to occur as a stem. The use of different word forms is intended to illustrate the phonological structure found in both roots and fully inflected Ateso words. In the presentation, the syllable breaks are indicated by a dot (.). The segmental structure of the syllable is set up in the order illustrated in Table (3.7) below. Some words have more than one syllable of different shape.

Table 3.7: Ateso syllables

Syllable structure	**Example**	
V.V	àí	‘where’
V.VC	àɛ̀p	‘axe’
V.V.CV	èʊ́ɟí	‘porridge’
V.V.CVC	àíŋòp	‘to hide’
V.V.CGV.CV	àìtwàtà	‘dam’
V.V.CVC.VC	àíkàmʊ̀n	‘to grasp’
V.CV	ípé	‘one’
V.CV.V	**ɛ́ˠ** táʊ́	‘heart’
V.CV.V.CV	àràìtɔ̀	‘crop’
V.CVC	íkúr	‘bug’
V.CV.CV	ìpàpá	‘grandfather’
V.CV.VC	àgɛ̀ʊ̀n	‘to begin’
V.CV.CV.CV	àkíwòwà	‘to fry’
V.CV.CV.V	àkàlèí	‘camel’
V.CV.CVC	àlélés	‘slope’
V.CV.CV.CVC	èkàcùdàn	‘witch(man)’
CV	nù	‘those’
CGVC	pwàp	‘down’
CV.CV	tótò	‘mother’
CV.CV.CV.CVC	lòkàpòlòn	‘leader’
CV.CV.CV.CV.CVC	lòkàbàrènón	‘barber’

The data presented above indicate different possible positions occupied by the phonemes, that is, consonants and vowels in a syllable structure. Syllable shapes V and CV are the most dominant syllable patterns. The V syllable is restricted to word-initial position, word-initial vowels being very common because of the gender, person and infinitive marking prefixes. Voiced vowels do not occur often at word-final position, a position mostly occupied by voiceless vowels when words occur in isolation.

From Table 3.7, Ateso words can be classified in four syllable structures, that is, bisyllabic, trisyllabic, quadrisyllabic and pentasyllabic. Many words occur with the syllable structures V.CV, V.CVC and V.CV.CVC. All monosyllabic words attested in this study end in a [+ATR] vowel. So far, there are only two monosyllabic words ending in a consonant: **àɛ̀p** 'axe' and **pwàp** 'down'. Roots and suffixes are much more likely to be disyllabic than prefixes which are always monosyllabic (except for class 2 infinitive prefixes, whose discussion is expanded later in chapter seven, which are disyllabic). Possible basic structure of a syllable is thus (C)V, (C)VC, (C)VVC, CGVC or CGVVC. The parentheses indicate optionality in the standard fashion (cf. Chomsky & Halle 1968). Most stems are (V).CVC structured (where the V in brackets is mostly an affix). Affixes may be of the shape CV or VC or V. Like in most languages of the world, in syllabification of Ateso phonological words onsets are preferred to codas. Thus, when a VCV sequence occurs within the same word and when C could in theory form an onset or coda, a V.CV is preferred over VC.V solution.

Occurrence of the consonant cluster CC, with two identical consonants, is disallowed in any position (word-initially, medially, or finally) in native Ateso words. Reduplications that would lead to consonant clusters require vowel insertion. In exceptional cases, the glides may be preceded by stops, as in the word **<abwas>**. This may be due to the fact that glides exhibit characteristics of vowels. But unlike vowels, glides also share consonantal features such as [+sonorant, +continuant, -tense] with consonants.

Most words occur with a prefix of the shape V in word-initial position. The prefixes are used for person and number marking. Only a few nouns occur without the prefix or have a CV prefix. The most dominant prefixes have the phonological shape [a], [i] and [e]. The CV.CV syllable word shape (patterns of vowels and consonants) occurs mostly with nouns.

3.3.1 The structure of syllable onset

Syllable onsets are occupied by single consonants (C), glides (G) or a combination of the two where the glide is always the second element. Possible onsets can thus be illustrated as follows:

C (can be any of the following: b d ɟ k l m n ŋ ɲ p t w)
G (w or j)
CG (e.g. bw, pw, kw, gw, mw, tw, pj, dj, tj, lj, mj, sj, rj)

Sometimes glides at syllable onsets become part of the nucleus. This vocalisation of glides is discussed in the next sub-section.

3.3.2 Vocalisation of glides

As already mentioned, Ateso allows for glides /w/ and /j/ after a consonant. The possible syllable shapes for this combination are CwV, CjV, CwVC, CjVC or CwV(V)C. Whenever a glide is preceded by a consonant and is followed by a vowel **u** or **e** in a sequence; phonetically, it becomes vocalised. The resulting phonetic form, sequence of vowels, will have two moras. A back rounded vowel /u/ with a simple tone on it results from a bilabial glide that is followed by the vowel /a/ or /e/ with a complex tone marked on them. The bilabial glide gets interpreted in the vocalic instead of the consonantal position after the transformation; together with the vowel that follows, they form two moras. An open CwV or closed CwVC syllable sequence becomes CVV or CVVC as illustrated in the following data. Nonetheless, glides are still analysed as consonants - at the phonemic level - since a syllable cannot consist of a consonant and glide only. Based on data collected for this study, no such syllables exist.

29. Examples of vocalised bilabial glides

a.	/àkwânà/	[àkúànà]	‘body’
b.	/àpwâp/	[àpúàp]	‘farm’
c.	/átwânà/	[átúànà]	‘has died’
d.	/kwâp/	[kúàp]	‘down’
e.	/àbwâŋ/	[àbúàŋ]	‘break’
f.	/àmwânà/	[àmúànà]	‘hot’
g.	/àdwátà	[àdúàtà]	‘mud’
h.	/àkwênà/	[àkúènà]	‘to laugh’
i.	/ágwɛ̂l/	[ágʊ́ɛ̀l]	‘to buy’

The phonemic brackets represent the phonological level or structural representation, while the phonetic forms are represented in square brackets. The conditioning of vocalisation of glides is not dependent on the consonant in the onset as shown in example (29).

Just like the vocalised bilabial glide, vocalisation also occurs with the palatal glide /j/. In this process the high front vowels are involved. The palatal glide is obscured in an assimilatory

process. The change of the primary articulation of the consonant phoneme to vowel is triggered by the phonological environment. A vocalised palatal consonant can be preceded by any of the nine vowels in the language. A high vowel /i/ is realised in place of the palatal glide. CCVC structure is replaced by a CVVC structure.

30. Illustration of vocalised palatal glides

a. /èpjânà/	⟶	[èpíànà]	'tasteless'
b. /ètjâŋ/	⟶	[ètíàŋ]	'beast'
c. /èdjôŋ/	⟶	[èdíòŋ]	'small'
d. /èkíljôk/	⟶	[èkílíòk]	'husband'
e. /àwásjâ/	⟶	[àwásíà]	'to prosecute'
f. /èrjônón/	⟶	[èríònón]	'black''
g. /ìmjôtó/	⟶	[ìmíòtó]	'chicks'

Glides of borrowed words with the same consonant and vowel distribution as those above also undergo vocalisation. This is illustrated by the following examples:

31. a. /èrédjô/	⟶	[èrédíò]	'radio'
b. /àkómpjûtà/	⟶	[àkómpíùtà]	'computer'

The structure in (31a) is of CjV shape which is similar to (30f) and (30g). The rest of the examples of the vocalised palatal glides occur in CjVC syllable structure.

3.3.3 The syllable nucleus

The nucleus is occupied by single vowels, or a sequence of vowels (as will be illustrated in the subsections below). Any of the ten vowels may form a single vowel nucleus of a syllable. The most basic and minimum syllable structure is thus made of a nucleus consisting of a vowel only. Vowel sequences that are possible in the language are illustrated in the following section:

3.3.3.1 Vowel sequences

Ateso is a language that allows vowels to occur next to each other. Vowel sequences are only limited to two vowels, resulting in a VV structure. Different combinations of vowels are possible but they must agree in terms of ATR quality. The resulting clusters are longer in length thus

suggesting VV sequences. Vowels in a sequence can differ in terms of rounding and fronting; each of them is a TBU implying that they are different V elements. Further, vowel sequences, as discussed below, within the syllable are not treated as diphthong nuclei: instead, they are distinct nuclei vowels preceded or followed by consonants. Consequently, these sequences are two moras in length. Ateso's possible vowel sequences are illustrated in the subsequent sub-sections.

3.3.3.1.1 The vowel sequence /ɔ/ + /ɪ/

The two vowels in the sequence share a [-ATR] quality feature. Their occurrence in words is restricted to word-medial and word-final positions. A combination of the /ɔ/ and /ɪ/ is revealed by the examples (32) below.

32. a. àkɔ̀ít ‘bone’
    b. àkìtɔ̀í ‘sticks’
    c. ɛ̀kítàbɔ̀í ‘books’

Example (32a) shows occurrence of the sequence word-medially while (32b) and (32c) shows the same combination word-finally.

3.3.3.1.2 The vowel sequence /o/ + /u/

This sequence consists of two [+ATR] rounded back vowels. Consider the following examples.

33. a. íkóú ‘head’
    b. àmòùn ‘to look for’
    c. àgòúgòú ‘chameleon’

A sequence of vowel phonemes /o/ followed by /u/ has been attested in different phonological environments. They can occur either word-medially as with (33b) and (33c) or word-finally (e.g. (33a)). The last syllable of “head” and the last syllable of “chameleon” have approximately the same length. Comparatively, the last syllable in “to look for” is longer than that of the former two.

3.3.3.1.3 The vowel sequence /a/ + /ɪ/

In this cluster, the [-ATR] low front vowel combines with a [-ATR] high front vowel. The resulting sequences are two moras in length and can be parsed into two separate segments, across syllable boundaries.

34.	a. àràìtɔ̀	'crop'
	b. ɛ̀màìdó	'groundnuts'
	c. ínágàì	'clothes'
	d. àbàìsìkɛ̀lì	'bicycle'
	e. àìlìlìŋ	'quite'

The phoneme /a/ and /ɪ/ features in examples (34). The sequence begins with a low unrounded vowel and moves to a high front vowel. The vowels occur in different positions: word-initially, as in (34e), word medially, as in (34a) and (34b), and word finally, as in (34c). The word for 'bicycle' is borrowed from English through Kiswahili where a similar sequence is accepted.

3.3.3.1.4 The vowel sequence /a/ + /ʊ/

The [+ATR] phoneme /a/, a low central vowel can combine with a high back vowel /u/. This combination can occur word-initially, as in (35b), word-medially, as in (35d) or word-finally as illustrated by examples in (35a) and (35c).

35.	a. kàʊ̀	'behind'
	b. àʊ́ɟà	'to lengthen'
	c. ètàʊ̀	'heart'
	d. àmʊ́nàʊ̀n	'to destroy for'

The sequence occurs both with closed and open vowels. It can also occur as a single syllable unit of VV shape, as in (35b), in which case the Vs are still two moras in length.

The four vowel sequences described so far constitute the most common combinations in Ateso words. Other possible vowel sequences are shown by the following examples.

36.	a. àbɛ̀ìt	'truth'
	b. àkìdèídèì	'to whisper'

c. àgɛ̀ʊ̀n 'to begin'

d. àkàɔ̀ 'swamp'

e. èwòè 'age set'

f. éòŋ 'I'

Examples consist of a combination of different vowels of the same vowel ATR quality. The different sequences **ɛɪ**, **ei**, **ɛʊ**, **aɔ**, **oe** and **eo** are rare and were only found in a few words.

3.3.3.1.5 Sequences of identical vowels

There are also instances where identical vowels occur in a sequence, for example vowel sequences **aa**, **ʊʊ**, **uu**, **oo** and **ɪɪ**. These vowels are two moras in length. The sequences of these vowels are shown in the following examples.

37. a. àmótòkàà ‘vehicle’

b. ítààkò ‘calf’

c. èmààsè 'termite'

d. èmʊ̀cʊ̀ʊ̀gá 'orange'

e. èpʊ̀ʊ̀sà 'jigger

f. àkítùùɲàr ‘to lengthen’

g. ípɔ̀ɔ̀ ‘hare’

h. kòòtò 'go'

i. tóómá ‘in, inside’

j. àkíìràrì 'to come into an agreement'

From the list of words in (37), the most frequently occurring combination of identical vowels is **aa**, appearing here in the first four examples. There are two loan words in the list, i.e. ((37a), (37d) are borrowed from English and from Kiswahili, respectively).

3.3.4 The coda

At word-final position, the coda may either be empty or occupied by a consonant. Hypothetically, all consonants can occupy the coda position. For pre-nasalised sequences, such as /nd/ in the loan word **è-ɲúndò** ‘hammer’, the consonant that will occur in the coda position is the sonorant /n/. The obstruent following the sonorant becomes the onset of the next syllable.

Most of the information on syllable structure has been presented in this section. A further detail on a phenomenon that occurs within the domain of the syllable is presented in the following subsection which deals with moraic units.

3.3.5 Moraic units

Ateso words can occur in different syllable shapes (e.g. CVCV or VV) as is with the disyllabic words **ŋénà** 'what' and **áì** 'where', respectively, but in terms of mora counting, they are similar. Both words contain two moraic units, namely the two vowels each of which carries a distinctive tone; the presence of intervening consonants (as in the word for 'what' above) is irrelevant for the assignment of tone. As already shown above, the two gliding onsets become moraic (i.e. tone-bearing units) phonetically when the following vowel carries a complex (falling) tone. The moraic units are summarised in Table (3.8).

Table 3.8: Some examples of Ateso's moraic units

Monomoraic	L nà 'this'	H nú 'those'	
Bimoraic	LL àcɔ̀k 'sweet potatoes	HH ídwé 'children'	LH tòtó 'mother' LHL ɛ̀mɔ̂ŋ 'bull' H˖ H é˖ djá 'vegetables'
Trimoraic	LLL àɲɔ̀nɔ̀ 'beer' LLH ìùní 'three'	HHH íkóú 'head' HHL íkókù 'child'	HLL élàpà 'month' HH˖ H íŋó˖ bó 'why' LH˖ H àkó˖ ít 'bone'
Quadramoraic	LHLL àmʊ́nàɔ̀n 'destroy'	LHHH ètóórí 'eagle'	LHLH àráìtó 'crop'

Table (3.8) presents possible moraic units in the language. Native Ateso words fall under four moraic categories, namely, monomoraic, bimoraic, trimoraic and quadramoraic. Trimoraic words are dominant in the language; they have seven possible patterns. However, though quadramoraic units have five possible patterns, words with quadramoraic (and those with monomoraic) units are relatively rare.

3.3.6 The syllable structure of assimilated loan words

There are a significant number of loan words from other languages which Ateso is in contact with. So far, nothing is known about the dates of borrowing. As mentioned in chapters one and two, most of the borrowed words are from Kiswahili, English and Luganda. Most technology words are borrowed directly from English or from English via Kiswahili or Luganda. The influence on Ateso by Luo, Lugwere, Karamojong' and Sabaot is not easily discernible. It can thus be safely concluded that the Bantu languages and English have major influences on Ateso.

Loan words are identified from the researcher's proficiency in English and Kiswahili. To exhaust the possible sources of Ateso loan words, references are made to particular literature by those who are proficient in Ateso and also speak other languages spoken by those neighbouring the Iteso. Moreover, Ateso is still in continuous contact with a variety of other languages and thus many words are expected to enter its lexicon.

Loan words that enter Ateso adopt the Ateso syllable structure. The loan words undergo morphological and phonological modifications to fit into the structure of Ateso. Some of the strategies employed while nativizing loan words include: vowel deletion, epenthetic vowel insertion and in some cases, consonant clusters are tolerated under the conditions set above. In addition, loan words that started with consonants before entering the language are assimilated by having word-initial vowels appended to them. This can be illustrated as follows with examples from Kiswahili. Note also that borrowed nouns acquire gender prefixes for masculine, feminine or diminutive that is in line with the Ateso class system. This issue is further discussed in chapter four.

Table 3.9: Loan words from Kiswahili

Kiswahili	**Ateso**	
kofia	è-kòfjà	'hat'
baiskeli	à-bàìsìkɛ̀lì	'bicycle'
kitabu	ɛ̀-kítàbɔ̀	'book'
chupa	ɛ̀-cʊ̀pàì	'bottle'
bakuli	à-bákùlì	'bowl'
bendera	à-béndèrà	'flag'
sanduku	à-sádùk	'box'
nyundo	è-ɲúndò	'hammer'
meza	è-mésà	'table'
mchungwa	è-múcùùgà	'an orange'

All words borrowed from Kiswahili end in a vowel. This is partly due to the fact that all Kiswahili lexical items end in a vowel. Since Ateso does not have a voiced alveolar fricative [z], the [z] from a loan word is replaced by the voiceless alveolar fricative [s].[17] Other loan words from Kiswahili retain their vowel final form.

Since the consonant cluster CC is disallowed (except for labials, /mp/), if any appears from the loan words, it is resolved by inserting an epenthetic vowel between them (e.g. in the word **àbàìsìkɛ̀lì** 'bicycle', where the short front vowel is inserted between the consonants /s/ and /k/. The epenthetic vowel is inserted in order to syllabify consonants which would otherwise remain unsyllabified. Normally, the tone of this epenthetic vowel is similar to the one marked on the nucleus of the preceding syllable. Sometimes the final vowels of the borrowed word are dropped. In other cases, where a CC /nd/ occurs in loan words, e.g. in the word **à-béndèrà**, the CC sequence is resolved based on the Sonority Hierarchy proposed by Restle & Vennemann (2001: 1312). These sequence is thus not realised as a unit phoneme but is parsed into two segments across syllable boundaries

[17] The borrowed words with the grapheme <ch> adopt the Ateso grapheme <c> which carries the same consonant value as that of the source language.

Loan words are pronounced in a manner which is predetermined by Ateso. The tone patterns are introduced to the loan words from toneless languages to fit to those similar to native Ateso words. Since many linguists working on African languages do not mark tone on orthography, the examples adapted from their work are not tone marked.[18]

Some changes also occur in words borrowed from Luganda. The Luganda word in example (38) for instance, drops the <f> when adapted into Ateso. As already indicated, the phoneme /f/ does not exist in Ateso.

38. <*oku-fuga*> 'to rule' (Luganda)
    Becomes /àí-pùgà/ (Teso and Pallisa dialect)
    /àkí-pùgà/ (Tororo dialect)

(Data from Hilders & Lawrance 1957: xxi)

More examples of Ateso loan words from Luganda as identified by Ongodia & Akoryo (2007: 3) as follows:

39. /émàkànsí/ written in Ateso as /àmàkààsì/ 'scissors'
    /èmùndù/ written in Ateso as /èmùùdù/ 'gun'
    /ènvúúnzà/ written in Ateso as /èpùùsà/ 'jigger'

Note that the nasal in these borrowings has been deleted in spite of the fact that Ateso allows for sequences of nasal followed by an obstruent. Ongodia & Akoryo (2007) indicate a lengthened vowel quality by doubling the vowel letter.

Loan words from English also adopt the Ateso syllable structure and tone patterns (e.g. Radio becomes /érédjô/, 'computer' /ákómpjûtà/, which has a labial cluster <mp> similar to the English structure where it is borrowed). In this case, the nasal phase is assigned to the coda position. The voiceless bilabial stop forms the onset of the immediately following syllable. Constituent parts of

[18] As there are very few minimal pairs lexically in Ateso, absence of tone marking on orthographic forms would not result in confusion. On the other hand, tone does distinguish subject from object, or past from non-past tenses, and so the present study recommends that tone should be marked occasionally on vowels in the orthography, in order to avoid ambiguous reading of sentences. This would not require marking all vowels written orthographically for tone all the time, but instead marking specific vowels for tone when context or knowledge about the real world does not help to disambiguate certain sentences.

the two sounds form segments of different syllables. The two sounds are therefore not treated as a consonant cluster.

3.4 Vowel harmony

Ateso vowels are subject to Advanced Tongue Root (ATR) harmony. The ATR vowel harmony system governs the phonetic influence of one vowel to another. The vowels are divided into two harmony sets which differ in terms of tongue root position. The two sets of tongue root position are: Advanced Tongue Root [+ATR], and the retracted tongue root position [-ATR]. The ATR vowel position has been discussed by different scholars, among them, Ladefoged (1964), Stewart (1967), Pike (1967), Schroeder & Schroeder (1987b), Jakobson (1987), Casali (2003) and Gafos & Dye (2011). All [+ATR] vowels have a [-ATR] counterpart. This argument differs from Polley & Jeffrey's (1977) observation for Turkana that [a] is a neutral vowel.

According to Gafos & Dye (2011), the issue of how deterministic phonetic forces may be of phonological behaviour, when we also consider that what appears to be the same vowel, may be transparent in some languages but opaque in others. For instance, Dimmendaal (1983a: 17) includes [a] in the [-ATR] set. In Toposa, another Eastern Nilotic language, the [a] is also included in the [-ATR] set but its function is that it is opaque.

Below, the behaviour of /a/ in Ateso in terms of vowel harmony will be discussed. It will be shown that it behaves like an underlying [-ATR] vowel in suffixes, like other [-ATR] vowels in the language do. In Ateso suffixes, /a/ alternates with /o/ and /ɔ/, the alternation between the latter two depending on whether mid vowel assimilation applies or not. The vowel /a/ does not alternate in prefixes and roots; in these contexts, it behaves like a neutral vowel. But it behaves like a transparent vowel in that it allows [+ATR] vowels following /a/ to spread their (dominant) feature to vowels preceding /a/. The vowel /a/ itself is realized as [ä] in such cases, which from a phonological point of view are entirely predictable. These various processes are illustrated next.

Ateso has a nine-vowel system identifies [a] as having [-ATR] qualities which is contrasted with the corresponding [ä] that is [+ATR]. The following Ateso examples demonstrate that [a] is [-ATR] while [ä] is [+ATR].

40. Illustration on the distribution of [a] and [ä] in Ateso words

a. [àdɛ́kâ] ‘disease’

b. [ɛ̀kíkàpʊ́t] ‘basket’

c. [àdɔ́kɛ́t] ‘a ladder’

d. [ǎkísísj**â̂]** ‘to teach’ (Tororo dialect)

e. [ǎísísj**â̂]** ‘to teach’ (Teso and Pallisa dialect)

As stated earlier, in a structural-phonological presentation, the tenth vowel [ä] is predictable. The /a/ occurs in the same word with either the [+ATR] or [-ATR] as predictable variants. In example (40a), (40b) and (40c) /a/ occurs with [-ATR] vowels while in (40d) and (40e) it occurs with [+ATR] vowels because the latter occurs after a glide and with [+ATR] vowels. Examples from the three dialects as discussed in chapter two are presented in (40d) and (40e).

Basically, in Ateso an underlying [+ATR] vowel will always cause any [-ATR] vowel to assimilate to [+ATR]. The harmony processes extend only to one neighbouring syllable. The [+ATR] vowels in a root may take a suffix containing the [-ATR] vowel without being subject to reverse harmony. At a more complex level, vowel assimilation strategies differ as will be illustrated in the sub-section below. Apart from **ä**, all [+ATR] vowels correspond to their counterparts.

The two harmonic sets according to the presence or absence of the feature ATR is illustrated in (41) below:

41. The two distinct sets of vowels based on vowel harmony

[+ATR] vowels	[-ATR] vowels
i	ɪ
e	ɛ
o	ɔ
u	ʊ
(ä)	a

The vowels of Ateso for any word will be drawn from any one of the two subsets except that /a/ may occur with either set. All other unadvanced positions have advanced counterparts,

commonly referred to as 'harmonic counterparts'. The [+ATR] vowels have tense phonetic quality while [-ATR] vowels have lax quality. Though the ATR affects tongue height and thereby accounts for the relative tongue height, ATR is not a category of tongue height but rather of the position of the tongue root.

Consonants excluding glides do not participate in the ATR harmony system and consequently do not trigger changes in the ATR quality of the vowels. Casali (2008) cites sources indicating that there are some languages in the Nilo-Saharan family such as Didinga, Kalenjin, Karamojong', Turkana etc., where semivowels [j] and/or [w] can interact with the ATR value of vowels (e.g. by causing adjacent values to become [+ATR]). As shown above, this also applies to Ateso.

Vowel harmony has two dimensions (see (Casali 2003, 2008) for extensive discussion of this phenomenon). One is the "aesthetic" dimension, namely, the condition that vowels ideally belong to [-ATR] or [+ATR] set within a word. There is also a dynamic dimension where ATR qualities may change as a result of affixation as further demonstrated in the sub-sections below.

Consistent with Optimality Theory (Prince & Smolensky 1993), vowel alternation and vowel harmony are features of agreement within phonological and morphological domains. Ateso's vowel alternation strategies are constrained by three vowel harmony rules. The three types of vowel harmony are: root-controlled, feature-controlled or mid-vowel assimilation.

3.4.1 Root-control

At a more abstract or morpho-phonological level, gender and person prefix vowels are [-ATR]. They become [+ATR] adhering to the ATR quality of the vowels of the root. On the other hand, the harmony that applies to suffixes is either feature-controlled or is constrained by mid-vowel assimilation both of which are discussed in the sub-sections below. Commonly, vowel harmony is spread from right to left (cf. van der Hulst & van der Weijer 1995). Consider the following examples:

42. a. è-tórì 'M-eagle'
    b. ɛ̀-mɔ̂ŋ 'M-bull'
    c. è-kíljôk-ìt 'M-man/husband'
    d. à-kóìt 'F-bone'

e. à-kɛ̀ɟʊ́ ‘F-leg’

f. ì-ràìt-ɔ̀n ‘F-crops’

g. í-kókù ‘D-child’

h. í-ljàtɔ́k ‘D-grandchild’

43. a. é-pègà

3SG-argue

‘(s)he argues’

b. í-líp

3SG-pray

‘(s)he prays’

c. ɛ́-mìnà

3SG-love

‘(s)he loves’

44. a. é-tò-pòròrì-tè

3-CAUS-jump-PL

‘they caused to jump’

b. ɛ́-tɔ̀-mɔ̀ŋ

3SG-CAUS-cry

‘(s)he caused to cry’

The examples show that gender prefixes and inflectional person markers prefixed on the nouns and verbs in (42) and (43), respectively, are susceptible to assimilation, where their ATR quality is caused to be the same as that of the root vowels. For instance, the gender prefix **ɛ-** in (42a) is **e-** when attached to the root **tórì** which has [+ATR] vowels while the 3SG in (43c) is **ɛ-** following the root **mìnà** that have [-ATR] vowels. Causative markers also occur as [+ATR] as with **to-** in (44a) or with a [-ATR] vowel quality as illustrated by example (44b). Hence, causative prefixes are also recessive and they simply alternate their ATR values to be the same as that of the root vowels that they are attached to.

3.4.2 Feature-control

There are two types of suffixes in the language: (1) ones with underlying [-ATR] which do not trigger harmony changes to anything to the left (unless there is something to their right that is [+ATR]); and (2) ones with underlying [+ATR] which do cause harmony changes to the left. Dative and itive suffixes are underlyingly [-ATR]; accordingly, they do not trigger harmony changes to the left. The dative choice between **-okin** or **-akɪn** and the itive **-or** or **-ar** depends on the vowel qualities of the root.

45. a. é-búk-ókín
3SG-pour-DAT
'(s)he pours for'

b. ɛ́-màl-àkìn
3SG-greet-DAT
'(s)he greeted for'

c. à-pèt-òr(i)
INF-kick-IT
'to kick away from from the speaker'

d. à-sʊ̀kʊ̀ŋ-àr(ɪ)
INF-push-IT
'to push away from the speaker'

The verb **è-búk**, in (45a), with [+ATR] root takes the dative form **-okɪn** while that with [-ATR] root vowels in (45b) takes **-akɪn**. For the itive morpheme, **-or** goes with [+ATR] roots and **-ar** with [-ATR] roots as illustrated by examples (45c) and (45d), respectively. These affixes do not affect the ATR quality of the verb root that they are attached to.

On the other hand, strong suffixes trigger ATR shift from [-ATR] to [+ATR] in roots since they themselves are always [+ATR]. As Casali (2008) discusses, this is the "normal" thing that happens in nine-vowel ATR systems: +ATR is dominant. The leftward-spreading is typical in other well described Eastern Nilotic languages. The suffixes do not conform to the general harmony patterns of the word root as is the case with weak vowels. Based on terminologies

adapted from Casali (2008: 13), the IPFV, the passive and reciprocal voice, **-i**, **-oi** and **-o** morphemes, respectively in Ateso are 'dominant' affixes since they do not alternate in their ATR values, but are invariantly [+ATR], whether attached to a [+ATR] or a [-ATR] root. The three 'dominant' suffixes trigger ATR shift on preceding vowels to become [ATR]. Vertical lines (|…|) are used to express the morpho-phonological representation of these words.

46. a. |ɛ́-mɔ̀ŋ-ɛ̀nɛ̀n-ɛ̀-tɛ̀| ⟶ /é-mòŋ-ènèn-è-tè/
3SG-cry-HAB-IPFV-PL
'(s)he used to cry (habitually)'

b. |á-ŋàk-ʊ̀n-òì| ⟶ /á-ŋàk-ùn-òì/
1SG-return-VEN-PASS
'I was being returned to the addresser'

c. |ɛ́-mìn-àkìn-ò-sì| ⟶ /é-mìn-àkìn-ò-sì/
3-love-DAT-REC-PL
'they love each other'

Addition of an IPFV to **ɛ́-mɔ̀ŋ-ɛ̀nɛ̀n** in (46a) causes the [-ATR] vowels in the verb stem to become [+ATR]. This is also the case with (46b) and (46c) where the [+ATR] values of the passive **-oi** and the reciprocal marker **-o** (which are harmonising features) causes a change of [-ATR] values of the verb stems **á-ŋàk-ʊ̀n** and **ɛ́-mìn-àkìn** to become [+ATR].

Essentially, it should be noted that vowel feature harmony operates within circles. Consider example (46c) above repeated here below.

47. a. ɛ́-mìn-àkìn
3SG-love-DAT
'love for'

b. |ɛ́-mìn-àkìn-ò-sì| ⟶ /é-mìn-àkìn-ò-sì/
3-greet-DAT-REC-PL
'they greeted each other'

Firstly, vowel harmony occurs within the lexicon (e.g. root + derivational suffix) as exemplified in (47a). Because the root contains a [-ATR] vowel **ɪ**, the dative suffix is **-akɪn**, rather than **-okin**. Secondly, the REC /o/ is an underlying [+ATR] vowel morpheme, i.e. it is dominant as a [+ATR] vowel, which causes vowels to the left to become [+ATR]. The two extensions consequently have different ATR values which would not be the case if they were added at the same time.

3.4.3 Mid-vowel assimilation

Following the previous analysis in the present chapter, Ateso has four mid-vowels. Mid-vowels are realized as [+ATR] (/e/ and /o/) or [-ATR] (/ɛ/ and /ɔ/). Mid-vowel assimilation in Ateso, first cited by Otaala (1981), is a morphophonological process that applies to the aforementioned vowels. When itive markers (with mid-vowel) are suffixed to verb roots that consist of mid-vowels, a regressive assimilation applies. Root vowel qualities thus change to conform to the [-ATR] qualities of the itive mopheme. The first set in each example in (48) will thus appear as their corresponding set on the right when extended by the itive morphemes.

48. a.	àkí-pét	à-pɛ́t-ɔ́r
	INF-kick	INF-kick-IT
	‘to kick’	‘kick away from the speaker’
b.	àkí-pòk(ò)	à-pɔ̀k-ɔ̀r
	INF-harvest	INF-harvest-IT
	‘to harvest’	‘to harvest (especially maize from the field) and bring home’
c.	à-kɔ̀kɔ̀	à-kɔ̀kɔ̀-àr
	INF-steal	INF-steal-IT
	‘to steal’	‘to steal from’

The itive marker (and its allomorphs) is basically a [-ATR] suffix underlyingly. Consequently, the roots **pet** and **poko** which are [+ATR] underlyingly are realized as [-ATR] if followed by an itive suffix **-ɔr**. This process (also attested in Toposa by Schroeder & Schroeder 1987b) always applies on [+ATR] mid-vowels.

3.5 Distinctive features for vowels

The distinctive features required to define the different vowel sounds and the interaction of Ateso vowels are given in Table (3.10). The aim of the distinctive feature matrix is to ensure that each segment is represented by a unique set of features. The symbol "+" indicates occurrences of features, whereas, "-" indicates no occurrence. The symbols will also apply to the presentations of distribution of both consonant and vowel phonemes.

Table 3.10: Ateso vowel features

	i	e	o	u	a	ɪ	ɛ	ɔ	ʊ
High	+	-	-	+	-	+	-	-	+
Mid	-	+	+	-	-	-	+	+	-
Back	-	-	+	+	+	-	-	+	+
Low	-	-	-	-	+	-	-	-	-

Referring to Table (3.10), the differences in vowel features are based on the articulatory parameters that relate to the positions of the tongue and the root of the tongue added to the activity of the lips. On the vertical axis, there exist distinctions of high or low vowels while on the horizontal axis, the vowels are either back or front. There is also mid versus low or high contrast of both back and front vowels. Voicing and syllabicity is non-distinctive in the vowels represented in this table. All vowels are [+voice] and [+syllabic], except in word-final position, where they can also be devoiced as a result of tonal configurations, as discussed in section 3.1.1.3 above. In other words, there exists voiceless counterparts for each of the voiced vowels but the former has the same features as their corresponding voiced forms except for the feature voiceless.

3.6 Vowel deletion

In a string of three identical vowels resulting from the juxtaposition of two morphemes, the first vowel is deleted. The deletion rule applies in such occurrences of vowel clusters since Ateso does not permit vowel complexes consisting of more than two vowels. The vowel deletion rule applies in contexts where three vowels will emerge in a sequence as follows:

49. [+syll, →[Ø]/— [-v, (o/i)]
    -cons]

The vowel deletes in the stated environment.

50. a. <ko-ooto> /kòòtò/ ‘go’
    b. <aki-iirari> /àkíìràrì/ ‘to come into an agreement’

The vowel deletion rule is a property of the syllable structure that is constrained in a way to generate a VV structure which is licenced by the language. A cluster of three identical /o/ or /i/ vowels, with citation structure VVV occurring in a string such as those in (50) are subject to deletion of one vowel in the cluster. The tones associated primarily with the deleted vowels are also deleted.

3.7 Combination of vowels and consonants in words

The syllable structure outlined above will serve as a frame of reference in the presentation of combination of vowels and consonants in words attested in this study. It is not clear whether the gaps are coincidental or systematic. This calls for future research on the same as an elaboration of the structural difference is beyond the scope of the present study. The possible consonant-vowel combination will be as follows:

Table 3.11: Illustration of combination of vowels and consonants

	/i/	**/ɪ/**	**/e/**	**/ɛ/**	**/ʊ/**	**/u/**	**/o/**	**/ɔ/**	**/a/**	**/aɪ/**	**/au/**	**/oi/**	**/ou/**
/p/	+	+	+	+	+	+	+	+	+	+	-	+	-
/b/	+	+	+	+	+	+	+	+	+	-	-	+	-
/t/	+	+	+	+	+	+	-	-	+	-	-	+	-
/d/	+	+	+	+	+	+	+	+	+	-	+	+	+
/c/	-	-	+	+	-	-	+	+	+	+	+	+	+
/k/	+	+	+	+	-	-	+	+	+	-	+	+	+
/g/	+	+	+	+	-	-	+	+	+	+	-	-	-
/s/	+	+	+	+	-	-	-	-	+	-	-	-	-
/ʃ/	+	+	+	+	-	-	-	-	+	-	-	-	-
/m/	+	+	-	-	+	+	-	-	+	+	-	-	-
/n/	+	+	-	-	-	-	-	-	+	-	-	-	-
/ɲ/	-	-	+	+	-	-	-	-	+	-	-	-	-
/ŋ/	+	+	-	-	-	-	-	-	+	+	-	-	-
/ɟ/	+	-	-	-	-	-	-	-	+	-	+	-	-
/l/	+	+	-	-	-	-	-	-	+	+	-	-	-
/r/	-	-	+	+	-	-	-	-	+	+	-	-	-
/w/	-	-	-	-	-	-	-	-	+	+	-	-	-
/j/	-	-	-	-	-	-	-	-	+	+	-	-	-

The vertical axis represents the consonantal phonemes in syllable-initial position; the horizontal axis represents the vocalic phonemes in syllable central position. The '+' indicates possible combinations where CV sequence occur. The vowel phoneme /a/ is the most versatile, as it combines with all the consonants phonemes and occurs in all positions in a word. The vowels [ʊ] and [ɔ] are least prominent.

3.8 Contextual nasalisation

Nasalisation occurs cross-linguistically on vowels that precede nasal stops. The nasal consonants are likely to leave traces of nasalisation on surrounding vowels. A vowel is nasalised when it follows a nasal consonant or occurs between two nasal consonants. In the case of Ateso, the vowel assimilates to the environment of the nasal consonants.

51. a. àmũ̃nã̃ũ̃n 'to destroy'
    b. àmwã̃nâ 'hot'
    c. àcámũ̃n 'to agree'
    d. mã̃m 'it is not there'

From the data, nasal segments leave traces of nasalisation (the tilde on vowels represent nasality) on surrounding vowels resulting in the phonetic realisation of the vowel as a nasal segment. Nasalisation on these vowels is not phonemic as there are no examples of units which would show that nasalisation is contrastive on these vowels. The nasal consonants either preceding or following the nasalised vowels do not undergo any change.

3.9 Conclusion

In summary, this chapter offers a detailed description of the phonological phenomena of Ateso's vowel and consonant phonology, including harmony patterns, and vocalisation. Ateso reveals the following phonological structures: concerning the vowel phonemes, Ateso has the monophthongs /i ɪ e ɛ u ʊ o ɔ a/. The nine monophthongs or a sequence of two vowels (either identical or otherwise) together with their voiceless counterparts make up the full inventory of Ateso vowel nuclei. Nasalised vowels occur only when the vowel is followed or preceded by a nasal consonant. There are 18 major consonant phonemes: /b c d ɡ ɟ k l m n ŋ ɲ p r s t ʃ w j/.

None of the phonemes show any (obvious) allophonic variation and may occur word initially, medially and finally.

Complex syllable onsets of C+ [glide] are limited. In these syllables, the glides /w/ and /j/ occur as the second consonant in a cluster purely based on their vowel like characteristics.

The chapter also provides the segmental phonology and distribution of sounds and the phonological processes active in the language. A number of processes relating to consonants and vowels discussed include vowel harmony, vowel deletion or shortening, tone, syllables, vowel alternation and contextual nasalisation. Vowel quality is phonemically contrastive. One vowel is deleted when the vowels occur in VVV shape within the same syllable. Phonological processes that depend on the deleted vowels still take place. All Ateso syllables must contain a nucleus and may contain an onset or coda. The nucleus is occupied by a vowel with either [+ATR] or [-ATR] quality: the harmony rules apply to ATR values where stems may consist of [+ATR] vowels only or [-ATR] vowels only.

Phonetically, Ateso exhibits four tones: high, low, falling and downstepped high tone. The prosodic entities that the tone gets associated with are the tone bearing units. The tone bearing units are vowels, both [+ATR] and [-ATR].

The discussion on phonological processes forms a benchmark for the analysis of various inflectional and derivational paradigms of the language. This will be discussed in the following chapters.

Chapter Four: Noun morphology and the structure of the noun phrase

Ateso has a rich system of inflection and derivation on nouns. Nouns can occur in bare forms, i.e. without any affix attached to them. They can also be inflected or derived productively with several affixes. In this chapter, the noun and its modifiers will be discussed. The first part of the chapter illustrates the rich agglutinating noun morphology defined by gender and number affixes. It highlights the nominal morphological processes, that is, inflection and derivation. Noun modifiers are tackled together with their function in relation to the noun they modify in the second part of the present chapter.

Inflectional and derivational paradigms are illustrated in the format with singular forms on the left and plural forms on the right, not enclosed in phonemic brackets, followed by the gloss. A hyphen indicates the boundary between inflectional or derivational morphemes and the noun root. In some cases, data is presented in three lines. In the first line will be the Ateso example, the second line is a morpheme breakdown and morpheme by morpheme gloss and the third line is the free translation.

4.1 Noun inflection

Noun inflection in Ateso is morphologically conditioned, hence a morphological description is undertaken to make insightful analysis of the inflectional processes. Schachter & Shopen (2007: 7) identify categories for which nouns may be specified as "either morphologically or syntactically, […] case, number, class, gender, and definiteness." The different inflectional processes do not lead to formation of new lexemes that bear new meaning but result in change of noun structure. Ateso nouns consist of different morphological slots, namely, gender prefixes followed by lexical roots and number suffixes.

Hieda (2013) was the first linguist to pinpoint the productivity of Ateso noun morphology. While writing a grammar of Kumam, a Western Nilotic language, Hieda (2013: 53) notes that most of the borrowed words, probably from Ateso, in Kumam have distinctive singular and plural forms. The present chapter explores the morphological processes that nouns often undergo to form singularity and plurality as cited by Hieda.

There is a great variation in singular and plural formation in the different Ateso nominal inflectional groups. Predictable inflectional morpheme relation between singular and plural forms is used in noun classification in this study as it is with some Nilotic languages. For instance, Toweett (1979) produced a classification of the nouns in the Kipsigis (Southern Nilotic) language based on the plural formative suffix.

To begin with, Ateso's gender marking strategies are established. This is followed by an analysis of different inflectional paradigms based on the criteria of the singular/plural inflectional forms which are expressed by change in affixes or root forms. These categories may have different semantic content ranging from animate to inanimate. Animate categories include humans and animals, while inanimate applies to plants and non-living things. Membership in some groups is semantically predictable, though in most cases it is arbitrary, at least from a synchronic point of view.

4.1.1 Gender marking

In Ateso, all nouns carry grammatical gender. Gender is specified by inherently gender-specific prefixes. Tucker & Bryan (1966) and Otaala (1981) were the first linguists to point at gender marking on Ateso nouns. Using reference terms for Ateso male and female native speakers, Otaala (1981: 2) explains that the **e-** and **a-** noun prefixes are gender markers. A male speaker will thus be referred to as **è-tésòt** in singular form and **ì-tésó** in plural. This is opposed to the female speaker who is referred to as **à-tésòt** in singular and **à-tésó** in plural. There is no mention of diminutive forms in Otaala's work.

Accordingly, gender prefixes alternate depending on two basic functions. The first and main function of gender prefixes is to mark gender where three gender distinctions apply, i.e. feminine, masculine and diminutive. Feminine and masculine gender relate to properties of sex of animate beings where male referents are tagged as masculine and females as feminine. Other referents are treated as diminutive gendered which is an indefinite reference to no particular sex but may be used for diminutisation of animate beings. All inanimate world objects and the abstract expressions are marked with gender. The three-way gender distinction is also reported in Toposa as: masculine, feminine and diminutive (Schroeder 2008: 4). But unlike Toposa (and other Teso-Turkana varieties) feminine or masculine singular nouns can be diminutive in the

plural. Secondly, gender markers may indicate singularity or plurality of noun forms to which they are attached. The gender prefixes in the language are illustrated in Table (4.1).

Table 4.1: Gender prefixes

	Singular	**Plural**
Feminine	a- ˊ	a-
Masculine	ɛ-, e- ˊ	ɛ-, e-
Diminutive	ɪ-, i- ˋ	ɪ-, i-

Possible singular/plural gender pairings (depending on the noun) are: a-/a-, a-/i-, ɛ-/ɛ-, e-/e-, ɛ-/ɪ-, e-/i-, ɪ-/ɪ-, i-/i-. Examples (1) illustrate inflectional distinctions which classify different grammatical entities according to their femininity, masculinity and diminutivity as presented in Table (4.1).

1. a. à-bɛ́rʊ̀ à-bɛ́rʊ̀ ‘woman’
   b. à-pésé à-pésúr(ù) ‘girl’
   c. à-ràìtɔ̀ ì-ràìt-ɔ̀n ‘crop’
   d. è-kíljôk-ìt ì-kíljôk ‘man/husband’
   e. è-sáp-át ì-sáp ‘boy’
   f. è-ɟákà-ít è-ɟákà ‘chief’
   g. è-mɔ̂ŋ ì-mɔ̂ŋ-ín(í) ‘bull’
   h. í-kókù í-dwé ‘child’

The use of a number-sensitive gender prefixation strategy does not preclude the availability of the singular and plural suffix in a noun. The noun **ì-mɔ̂ŋ-ín(í)**, for example, occurs with both the plural gender prefix **ì-** and the plural suffix **-ín(í)**. Feminine gender markers are not limited to animate reference words only; they also include reference terms for inanimate forms such as that in (1c). Additionally, there are two other strategies for gender marking that are restricted to masculine and feminine forms. The prefixes **na-/nu-** (feminine) and **lo-/lu-** (masculine) are used for singulative and plural marking of gender classes of nouns derived from verbs. Data in this chapter is evidence to support a fully productive gender grouping for all the nouns that exist in the language.

Number suffixes are used to group nouns into various inflectional classes. The different inflectional classes are thus established in the following section.

4.1.2 Number suffixes

Ateso has a tripartite division of nouns which Dimmendaal (2000: 214) identified as a common feature for languages in the Nilo-Saharan phylum. The features are stated as follows: Firstly, nouns with plural marking, where the singular is morphologically unmarked and the plural morphologically marked. Secondly, the languages contain nouns with singulative marking, where the singular is morphologically marked and the plural unmarked. Lastly, there is a group of nouns with replacive marking, where the singular and plural are morphologically marked. This classification is adopted in this study as it also fits the Ateso number inflectional system.

Additionally, Ateso has nouns that exhibit no alternation. Number in these nouns is covertly marked and can only be realised overtly in syntax. There are also irregular or semi-irregular nouns that will be presented in the discussion.

4.1.2.1 Plurative marking

Nouns in this division are presented in two groups. Membership in each of the following groups is based on the shape of the plural suffix. The plurals are derived from singulars by suffixation.

- **Group 1**

Group 1 includes nouns which refer to some animals, parts of the human body, crops and loan words for man-made things. These nouns form plurals by adding the suffix **-Vn** to the stem of the singular form.

2.	a.	è-cóm	ì-cóm-ìn	‘baboon’
	b.	è-mɔ̂ŋ	ì-mɔ̂ŋ-ín(í)	‘bull’
	c.	è-búrék	è-búrèk-ìn	‘brake’
	d.	à-kɛ̀ɟʊ́	à-kɛ̀ɟ-ɛ̀n	‘leg’
	e.	à-kân	à-kân-ín	‘hand’

Most nouns in this group have monomoraic roots. The noun term for ‘brake’ in (2c) is borrowed from English, it acquires Ateso’s gender prefixes **e-/e-** and a plural marking strategy that is like

other Group 1 Ateso forms. In addition to the list above, other nouns that are members of the plurative group consists of man-made things and plants which form the plural by adding the suffix **-n** to the noun stem. A list of nouns with plural suffix **-n** is provided in (3) below.

3.	a.	è-tórì	ì-tórì-n	'eagle'
	b.	à-kábwà	à-kábwà-n	'bow'
	c.	à-kápà	à-kápà-n	'bandage'
	d.	è-páɲàn	è-páɲàn-ìtìn	'relative'
	e.	à-ràìtɔ̀	ì-ràìtɔ̀-n	'crop'

Additionally, one noun (3d) indicating relationship also falls in this category. It forms its plural by adding the suffix morpheme **-itin** to the noun stem. Its inclusion in this group is based on the fact that its singular is unmarked while its plural is marked. The plural suffix of this noun also ends with an alveolar nasal.

Members of Group 1 have formations organised into consonantal suffixes, i.e. suffixes containing a consonant /n/. The plural morpheme /n/ can be preceded by a [+ATR] or [-ATR] vowel. Other nouns with similar plural formation strategy to those in Group 1 are presented in Group 2.

- **Group 2**

There are a large and increasing number of nouns borrowed from other languages. The nouns are nativised once they enter the domain of the Ateso vocabulary (Myers-Cotton & Okeju 1973). Most of these nouns are borrowed from English through Kiswahili. The borrowed nouns represent new items or concepts previously not found in Iteso land. Sometimes loan nouns are used when an Ateso word is available because they are considered more elegant or prestigious. Borrowed nouns, majorly referring to inanimate things and some insects, form their plural by adding the plural suffix **-i** or **-o** to the stem.

There is also a creative strategy of vowel prefix addition to the loan nouns. Gender markers that are not present in their source language are prefixed to the nouns to conform to the Ateso gender marking system. The most dorminant gender markers in this group are **a-/a-** and **e-/e-**. Gender prefixes are bound by the ATR harmony rules.

The nouns in (4) are borrowed from Kiswahili or from English through Kiswahili. The first columns indicate relevant English and Kiswahili forms that are the source for the Ateso equivalents on the right. Some of the Kiswahili forms such as **kitabu** 'book' goes back to Arabic.

4.	**English**	**Kiswahili**	**Ateso/SG**	**Ateso/PL**	
	a. bicycle	baisikeli	à-bàìsìkɛ̀lì	à-bàìsìkɛ̀lì-ɔ	'bicycle'
	b. -	mbao	à-bàó	à-bàwó-í	'board'
	c. -	kitabu	ɛ̀-kítàbɔ̀	ɛ̀-kítàbɔ̀-í	'book'
	d. -	bakuli	à-bákùlì	à-bákùlì-ó	'bowl'
	e. motor car	motokaa	à-mótòkàà	àmótòkà-í	'vehicle'
	f. -	kofia	è-kófjà	è-kófjà-ì	'hat'
	g. -	sanduku	à-sádùk	à-sádùk-ò	'box'
	h. -	bahasha	à-bákàsà	ì-bákàsà-í	'envelope'
	i. -	bendera	à-béndèrà	à-béndèrà-í	'flag'
	j. -	nyundo	è-ɲúndò	ì-ɲúndò-í	'hammer'
	k. -	birika	à-bírìkà	à-bírìkà-í	'kettle'

Noun terms with double vowel endings such as that in (4e) have their last vowel replaced by **-i** in the plural. The deletion of the end vowel before adding a plural suffix which happens to be a vowel helps to resolve the non-felicitoius VVV structure. A glide is inserted in the plural form of the noun in (4b) to avoid the VVV. All the loan nouns acquire tone that corresponds to the Ateso native noun tones which is High, Low and Low-High. A high front vowel /i/ in the borrowed word for 'hat' is replaced by a palatal glide in the resulting Ateso form in a glide formation strategy typical for Ateso.

In addition, some nouns which are basically native Ateso exhibit plurative marking with suffixes that are similar to loan nouns and thus fall under the same inflectional class as the loan nouns. These noun terms are also included in Group 6.

5.	a. à-dábò	à-dábó-ì	'basket'
	b. è-bólè	ì-bólè-í	'bible'

c.	à-pápùlà	ì-pápùlà-í	‘card’
d.	à-kóìt	à-kój-ò	‘bone’
e.	è-pús	è-púsà-í	‘jigger’
f.	è-kórì	ì-kórj-ò	‘giraffe’
g.	lò-dótè	lù-dótè-k	‘healer’

The plural noun term **à-kój-ò** ‘bones’ in (5d) has a glide which intervenes to avoid an illegal vowel cluster that results from deletion of the final consonant of the singular form before addition of the plural suffix **-o**. Likewise, a glide is introduced in the plural form of (5f) following the glide formation strategy explained in the phonology chapter. Example (5g) is the only noun in this group that consists of a gender marker of a CV type.

Further, some native nouns referring to animals, items and body hair have characteristics similar to those of borrowed nouns. They are pluralised by adding a vowel suffix to the singular form; only that this time the plural vowel suffix involved is **-ia** and not **-i** or **-o**.

6. a.	à-ɛ̀p(ɛ́)	à-ɛ̀p-íà	‘axe’
b.	è-kéngèrè	ì-kéngèr-ìá	‘bell’
c.	è-pénòk	ì-pénòk-íà	‘visitor’

The term for ‘bell’ ends with a vowel **e** which is dropped before adding the plural suffix **-ia** or alternatively, its quality changes to fit into the **-ia** plural paradigm. The noun for **áɛ̀p(ɛ́)** ‘axe’ has a voiceless vowel which is lost when the plural suffix is added to it.

In general, some of the borrowed noun terms gain productive morphological devices that derive plurals from singular nouns. These words have no productive morphological system in their source language. For instance, the noun form in (4e) exists in invariant form in Kiswahili and the assignment of its number is based on context.

4.1.2.2 Singulative marking

This inflectional class consists of nouns whose singulars are morphologically marked while their plurals are unmarked. The plural is the basic form from which the singular is derived from. Singulatives are less productive compared to nouns with plural marking. Following the discussion from the previous subsection, all singulatives are put in Group 3.

- **Group 3**

This group is composed of nouns that refer to male human beings, some parts of the body and some insects. Animate beings in this group have masculine or feminine gender prefixes while inanimate forms have feminine gender marked by the prefix **a-** in both singular and plural. Looking at the data, the number morphology is different, i.e. it is marked on the singulars and not on plurals. Singular nouns in this group have segmentally distinct singular suffixes which are absent from the corresponding plural forms. The singular suffix is usually a vowel and the consonant /t/.

It should be noted that some degree of inconsistence/irregularity exists where some syllables of singular markers do not have the **-Vt** shape. For instance, (7c) has an open final syllable of the GV shape as opposed to the rest of the nouns in the group whose singular markers are closed syllables. The inclusion of (7c) in the group is based on the singulative marking and not consonantal ending. The unmarked plural noun stem has either a final closed syllable, as in (7a-c) or open syllable, as in (7d) and (7g).

7.	a. è-kíljòkít	ì-kíljòk	'man/husband'
	b. ɛ̀-sáp-át	ì-sáp	'boy'
	c. è-kíjàk-jà	ì-kíjàk	'messenger'
	d. è-ɟákà-ít	è-ɟákà	'chief'
	e. è-kúr-ùt	ì-kúr	'insect/caterpillar'
	f. à-ɟán-ít	à-ɟán	'broom'
	g. à-mákà-ít	à-mákà	'charcoal'
	h. è-wósì-nòt	ì-wós(ì)	'buttock'
	i. à-kàlà-ít	à-kàlèí	'camel'
	j. à-ɲà-ít	à-ɲà	'blade of grass'
	k. è-márè-t	ì-márè	'cereal'
	l. à-tótól-èt	à-tótól	'hot charcoal'

The inflectional class for nouns in this group is as follows: the singular is defined by a singular gender **e-/a-**, where the **a-** and **e-** alternate according to the specified gender. Plural forms, from which the singulars are derived, do not have segmentally distinct suffixes and their stems end

either in consonants or vowels. Plurals have the gender prefix **i-**, **e-** or **a-** attached to the noun stem. The singular form in (7c) has the marker **-ja** instead of **-ia** following the glide formation strategy that applies to it. The voiceless vowel in the plural basic form **ì-wós(ì)** 'buttock' is voiced when singular morphemes are added to the noun stem. The reference term for 'camel' is unique as a segment of the nucleus changes shape when the singular marker is added to the plural forms, a consequence of the vowel harmony checking. The word for charcoal, **à-mákà**, is borrowed from Kiswahili.

Generally, the tones of plurals are the same as those of the singulars. Both the singular and plural gender prefixes are low toned. A singular suffix with a vowel component may have a similar or different tone from the noun preceding it.

4.1.2.3 Replacive marking

There are a number of nouns that exhibit replacive marking. Number is morphologically marked by different suffixes on both singulars and plurals. Replacement of number suffixes is illustrated in Group 4 and 5.

- **Group 4**

Singular and plural nouns in Group 4 take different number inflectional suffixes. Nouns in this group denote what people do, that is, their profession. The group consists of nouns mostly derived from verbs. The distribution of plural morphemes is predictable from the shape of the singular markers.

Singular forms are gender marked by the prefix **lo-** while the morpheme **lu-** marks the plural gender. The morpheme **ka-** is a derivational component that marks the derivation from verbs to nouns as further discussed in section 4.2. The motivation for inclusion of nouns with such variances, for example (8k), to this group is based on the fact that both plural and singular forms are marked. A few variances can be observed both in the singular and plural inflectional forms. The singular suffixes for (8c), (8d), (8f) and (8k) are: **-it**, **-on(i)**, **-an(i)** and **-te**, respectively while the rest of the nouns are marked by **-n(i)**. All the nouns whose singular markers consist of a nasal end in a voiceless vowel. Only three variances exist in the plural suffix which have the forms **-k**, **-ak** and **-ok**.

8.	a. lò-kà-pòlò-n(ì)	lù-kà-pòlò-k	‘leader’
	b. lò-kà-tùmùnà-n(ì)	lù-kà-tùmùnà-k	‘youth’
	c. lò-kà-gìr-ìt	lù-kà-gìr-àk	‘author’
	d. lò-kà-bàrèn-òn(ì)	lù-kà-bàrèn-òk	‘barber’
	e. lò-kà-màdà-n(ì)	lù-kà-màdà-k	‘doctor’
	f. lò-kà-ɟànàkìn-àn(ì)	lù-kà-ɟànàkìn-àk	‘servant(pastor)’
	g. lò-kà-tédèkà-n(ì)	lù-kà-tèdèkà-k	‘nurse’
	h. lò-kà-éʃàràʃàrà-n(ì)	lù-kà-éʃàràʃàrà-k	‘priest’
	i. lò-kà-tò-n(ì)	lù-kà-tò-k	‘traveller’
	j. lò-kà-dwàrà-n(ì)	lù-kà-dwàrà-k	‘prophet’
	k. lò-jénè-tè	lù-kà-jènà-k	‘prisoner’

This group of nouns is characterised by a gender prefix of the CV shape attached to the root both in the plural and singular forms. All the gender prefixes are set off by an alveolar approximant plus a vowel, whose shape is determined by number. There is a synchronic phonological tone relationship between singular and plural noun stems in this inflectional paradigm, i.e. the tonal melody of these forms is fixed. For instance, if the singular is LLLL (as is the case with (8a)), the plural will also occur with LLLL tone melody.

There are some non-derived nouns that also show replacive marking. Based on the replacement of the suffix component only, these nouns are classified together with those in (8). Apart from (9f) where the suffix **-u** in the singular is replaced by **-o** in the plural, the rest of the members in this group have the suffixes **-n(i)** and **-k** for the singular and plural suffix, respectively. The singular gender is marked by **e-/a-** while the plural marking alternates between **a-**, **e-** and **i-**. This is illustrated in (9).

9.	a. à-térà-n(i)	à-térà-k	‘bride’
	b. è-térà-n(i)	à-térè-k	‘bride-groom’
	c. è-múrwò-n(i)	è-múrwò-k	‘traditional doctor’
	d. è-kókólà-n(i)	ì-kókólà-k	‘thief’
	e. è-músàó-t	ì-músàó-k	‘midwife’
	f. à-ténùs-ù	à-ténùs-ò	‘drum’

Lexical entries in this group include people's positional status or professions. The plural root forms correspond exactly to their singular forms (except in (9b) where /a/ is replaced by /e/ in the last syllable of the root) with variation on the gender and plural number suffix.

In addition, the replacive group also contains noun forms that refer to people employed in what is considered as lowly professions, some animals and items. Suffix substitution occurs when the final consonant syllable **-t** in the singular noun form changes to **-n** when the singular noun is pluralised. Apart from (10d), a Kiswahili loan word, two other loan nouns with replacive marking completes the list. The two nouns as listed in (10h) and (10i) have the front high vowel **-i** instead of the alveolar **-n** marking plural form.

10.	a.	é-músàgò-t	í-músàgò-n	'butcher'
	b.	è-pákàsì-t	ì-pákàsì-n	'labourer'
	c.	è-dókòlè-t	ì-dókòlè-n	'monkey'
	d.	è-kíkàpù-t	è-kíkàpù-n	'basket'
	e.	è-dóŋò-t	è-dóŋò-n	'bell'
	f.	à-swá-t	à-swá-n	'bracelet'
	g.	à-rísàsì-t	à-rísàsì-n	'bullet'
	h.	à-cúpà-t	à-cúpà-í	'bottle'
	i.	à-kíkòmbè-tè	ì-kíkòmbè-í	'cup'

All the final syllables of the plural nouns in this group have a CVC or a CVV shape, involving components of the root and the number suffix.

The tripartite number marking does not exhaust all the nominal number marking strategies in the language. There exist nouns whose number distinction is unmarked (see 4.1.2.4) and those whose singular and plural roots are morphologically different from each other, as discussed in 4.1.2.5.

4.1.2.4 Non-alternating nouns

Apart from nouns with plural marking, singulatives and replacives, Ateso also has nouns that exhibit no alternation. For the purpose of the present discussion, these nouns are categorised as belonging to Group 5.

- **Group 5**

Group 5 consists of nouns whose stems carry no number suffix. They are characterised by absence of overt number markers. These noun stems are not inflected for number but most of them have gender prefixes that are also markers for plurality and singularity. However, some nouns that have specific reference to blood relations occur with zero inflectional morphemes. Number in such nouns can only be shown when they occur in a clause or sentence.

The nouns in this subcategory exist in one form for both singular and plural, i.e. they occur without derivations in invariant forms. This implies that number marking is covert, rather than overt, to some extent. The noun's inherent status, as a singular or plural form as well as a feminine or masculine form, is determined by its morphosyntactic behaviour (agreement, cross-reference marking on the verb).

11.	a.	à-kìpì	'water'	k. à-bésèn	'basin'
	b.	à-tàpà	'hard porridge'	l. à-bókòŋ	'chin'
	c.	è-úɟí	'porridge'	m. è-sàà	'clock'
	d.	tótò	'mother'	n. à-ítwâtà	'dam'
	e.	pápà	'father'	o. è-múpìrà	'ball'
	f.	mámáì	'uncle'	p. à-bɛ̀rʊ̀	'woman'
	g.	ɟáɟà	'aunt'	q. à-kíɲèt	'fat, oil, paraffin'
	h.	ì-pápà	'grandfather'	r. à-kítɛ̀ŋ	'cow'
	i.	à-kábàkà	'king'	s. à-sásìt	'cartridge'
	j.	è-pámà	'cotton'	t. à-kɔ́lɔ̂ŋ	'sun'

The term **èsàà** 'clock' is a borrowing from Kiswahili (ultimately from Arabic). Invariant singular forms include nouns referring to human beings or mass items that are indivisible. Additionally, names for insects (e.g. **è-múkùŋ** 'black ant', **è-sírùt** 'mosquito' **è-ídèpìt** 'flea') are members of this group since they exist in singular or plural invariant forms.

Some kinship nouns in this group are bisyllabic. They occur in a unique CV.CV shape that is uncommon in the language. These nouns do not exhibit any explicit gender prefixes, e.g. (11d-f). Apart from these few unique words, nearly all words in Ateso have prefixes or suffixes - or both.

The nouns in this group may be used together with numerals for explicit number reference. This is illustrated in (12) with the noun for ‘clock’ whose number is tagged by numerals.

12. a. à-àŋú-t èsàà èdópé
1SG-see-PFV clock one
‘I saw one clock’

b. à-àŋú-t èsàà ìárê
1SG-see-PFV clock two
‘I saw two clocks’

The numerals **è-dópé** ‘one’ and **ì-árê** ‘two’ indicate the number of clocks. The noun **èsàà** ‘clock’ remains unchanged as number is not marked on it.

Mass nouns that occur in the language are used to denote invariant forms. There is no number at all for mass nouns and a few others like ‘ear’ and ‘heart’. These nouns are listed in (13) below. The term for ‘cattle’can be represented by either of the two terms in (13a) each of which occurring in invariant form.

13. a. à-kítùk or ì-bárèn ‘cattle’
b. à-máràgwé ‘beans’
c. à-kírjâ ‘flour’
d. à-kílè ‘milk’
e. à-kìt ‘ear’
f. è-tàù ‘heart’

It is evident from the examples that there is no productive inflectional process in terms of number involved in either direction. Plural and singular inflectional elements do not attach to the nouns hence the nouns occur in bare stems consisting of the overt gender marking only.

Relation terms and nouns denoting humans are among the core nouns in this group that exhibit no inflectional number suffixes (see examples in section 4.1.3). Loan nouns such as words for ‘porridge’, ‘basin’, ‘ball’ and ‘beans’ are also not involved in the productive morphological operations for singular and plural forms.

4.1.2.5 Irregular or semi-irregular nouns

Ateso also has nouns that occur in different root shapes in plural and singular forms. These nouns are presented under Group 6.

- **Group 6**

Nouns in Group 6 are either irregular or semi-irregular in form. Their roots undergo partial or total stem modification from singular to plural. Change in noun forms may be accompanied with or occur without suffixes.

14.	a. è-twân	ì-túŋà	'person'
	b. í-kókù	í-dwé	'child'
	c. à-pésé	à-pésúr	'girl'
	d. ì-táákò	ì-ták	'calf'

Irregularity in the plural forms takes different forms of some type of change in the noun stem. For instance, (14b) is a suppletive form as it undergoes total change in the root as opposed to (e.g. (14a) and (14d)) which occurs with partial adjustments on its segments. Example (14a) involves both change in the prefix and coda consonant while (14c) has partial changes in the stem. There is minimal change in (14d) where one vowel in a sequence of **aa** vowels in the singular noun root is deleted in the plural root of the same noun.

4.1.2.6 Summary of the noun inflectional paradigm

Morphologically, Ateso nouns consist of a root/stem and zero or more affixes. Emphasis has been given on singularity and plurality in the categorisation of nouns into inflectional paradigms. Number is marked by suffixes either on the singular or plural only or on both singular and plural nouns or there is no number suffix at all (e.g. for mass nouns and a few others like 'ear' and 'heart') while gender markers are prefixed to the nouns. Furthermore, the semantic information is not an important criterion in the noun grouping since different semantic terms are represented in the different groups and members of one semantic category may appear in various groups.

The groups described above can be used to account for all the nouns in the corpus. It excludes proper names. In some cases, only a few examples are given for convenience. The entire data on

nominal morphology is clipped from the expansive data collected during fieldwork. However, the list may not be fully exhaustive and some elusive nouns might have escaped this grouping.

The segmental structure of a noun gender prefix consists of a V or a CV syllable. The gender prefix vowel can either be a [+ATR] or [-ATR]. The prefix vowels that mark gender on nouns are: **a-**, **e-** and **i-,** plus allomorphs conditioned by ATR harmony. Gender is not overtly marked on some kinship and some gender specific terms.

Suffixal number inflection markers may consist of vowels only, consonants only or vowel(s) together with a consonant(s). Table (4.2) provides a summary of the pluratives and singulative markers.

Table 4.2: Plurative and singulative markers

Singulative suffixes	**Plurative suffixes**
-Vt	-Vn
-ja	-n
-ɔn	-itin
-not	-o
-n	-i
-an	-k
-te	-ia
-t	

The table presents the basic structure of number markers. Vowels in both the singulative and plural suffixes follow the ATR quality of the noun root.

Additionally, the language has a separate optional plural marker that is appended either to the noun complex or the verb. The two plural strategies involve grammatical affixes and the use of one generally precludes the other plural marker in the construction. This will be elaborated in section 5.1.1.

Corresponding gender prefixes can have the same or different shapes for singular or plural form. A low tone is appended on most of the gender prefixes. Besides the vowel only gender prefixes, the language also exhibits CV nominal gender prefixes **lo-** and **na-** for masculine and feminine

singulars and **lu-** and **nu-** for plurals, respectively. The CV structured gender markers mostly appear in derived noun forms.

4.1.3 Kinship terms

This section provides an elaborate list of kinship terms for Ateso. Some of the kinship terms have been listed in the different groups above. Kinship terms are primarily used to denote persons who are blood kin. It also includes people who are not a blood relation in order to show respect and affection to a person who occupies a position comparable to blood kin. This group thus include affinal kinship terms such as 'father-in-law' and 'mother-in-law'. Some of the relation terms do not map exactly into English distinctions, the term **ònèc** 'brother', for example, may be used to refer also to a step-brother or cousin. The term **tótò** not only refers to the biological mother as illustrated in (15b) but also to co-wives to one's mother. They are differentiated by the order of their marriage with those married before one's mother are referred to as **tótò nàkàpòlòn(i)** 'big mother' or **tótò nícì** 'small mother'. The term for grandmother and grandfather (see (15e) and (15f), respectively) also code more than one 'type' of relation. They apply to both the father and mother's parents. A family tree distinctively indicating appropriate kinship terms is given in Appendix 3.

All kinship terms fall into group 5 and 6 inflectional classes which are characterised by noun terms that exist in invariant forms and irregular or semi-irregular nouns. Some kinship nouns occur in bare root form without derivations or with prefixes for gender and number distinctions. Those that occur in bare root form have a CV.CV(V) syllable structure. The noun forms for basic kinship terms are illustrated in (15).

15.

a. pápà	'father'	l. è-kàmùràn	'father-in-law'
b. tótò	'mother'	m. à-kàmɔ̀ràn	'mother-in-law'
c. kìnàc/kànàc	'sister'	n. è-kàmɔ̀ràn	'son-in-law'
d. ònèc	'brother'	o. à-mùì	'sister-in-law'
e. ì-pápà	'grandfather'	p. è-mùì	'brother-in-law'
f. tátà	'grandmother'	q. ònèc	'step brother'
g. ɟáɟá	'aunt'	r. è-cèn	'nephew'
h. mámáì	'uncle'	s. à-cèn	'niece'

i. à-tàtàìt	‘grandchild (female)’	t. à-pésé	‘daughter’
j. ɛ̀-tàtàìt	‘grandchild (male)’		
k. ì-ljàtɔ́k	‘neutral (great grandchild)’		

Ateso speakers have a high regard for extended families and this might be part of the reason for the rich kinship terms which in some case are shared as referent to more than one member in the group. Some of the kinship terms exclusively mark feminine and masculine gender by use of gender prefixes (see e.g. (15i) and (15j)). The gender-marking morphemes for kinship nouns are inherently [+ATR] or [-ATR] vowels. Feminine gender for kinship terms, just as with some nouns in different categories, is marked by the prefix **a-** while the masculine is marked by the **e-** morpheme. Some of the kinship terms appear as free morphemes, they occur with no inflections (e.g. **ɟáɟá** ‘aunt’, **mámáì** ‘uncle’ and **pápà** ‘father’). Filial kinship terms include nouns for ‘husband’ and ‘wife’ which have been mentioned in the previous section.

4.2 Noun derivation

Ateso has an extensive internal mechanism that enriches its lexicon. Noun forms are open to expansion through a productive phenomenon known as derivation. Derivation involves affixation, supra-fixation and change of stems (or ablaut).[19]

Nouns are derived productively from other nouns or other word categories. The following derivation processes exist: dimunitisation, augmentation, verb to noun derivation, concrete to abstract noun, and adjectives to abstract nouns derivation. Diminutisation and augmentation signify a changed noun state and are therefore analysed as derivations. The two processes are only possible on singular noun forms.

4.2.1 Diminutisation

Some Ateso nouns indicate diminutive forms which are derived from other nouns using both morphemes and supra-segments to denote smallness of things, especially living things. Diminutive forms are mostly used in a derogatory manner. They consist of high-toned diminutive prefixes **i-** or **e-** attached to the noun stem.

[19] As indicated by Dimmendaal (2011: 33), ablaut is a German term which may further be subdivided into metaphony (qualitative alternation…) or apophony (quantitative alternation).

16. **Basic form** **Diminutive**

a.	ì-kókù	‘child’	í-kókù	‘small child’
b.	ɛ̀-mɔ̂ŋ	‘bull’	í-mɔ̂ŋ	‘tiny bull’
c.	pápà	‘father’	í-pápà	‘small father’
d.	ì-mòɟòŋìtì	‘old man’	í-mòɟòŋìtì	‘small old man’
e.	è-mòɟòŋìtì	‘old woman’	é-mòɟòŋìtì	‘small old woman’
f.	ì-tògò	‘house’	í-tògò	‘small house’
g.	è-twân	‘person’	í-twân	‘small person’

Nouns that have a different gender prefix from **i-**, and those with no overt gender inflections acquire the prefix **i-** and a high tone for diminutives, as in (16b), (16c) and (16g). For those with the prefix **i-**, there is no change of the prefix in the diminutive except for the high tone marked on the prefix which replaces the low tone, e.g. (16a), (16c), (16d), and (16f). In example (16e) there is no change in the gender prefix **e-** for diminutive, the diminutive is marked supra-segmentally by the high tone on the prefix. All diminutive nouns have characteristics of Group 2 nouns, i.e. they have one form for both singular and plural reference.

4.2.2 Augmentation

This derivation process, which is absent in the other members of the Teso-Turkana group, leads to formation of augmentative nouns. The derived forms consist of nouns which denote the bigness of things. They include living things especially of supernatural power. Nouns in this group are often used in derogatory manner. The prefix **a-** is used with a high tone affixed on it to derive augmentative nouns. The high tone is the dominant tone spread across the nouns formed by this derivation process.

17 **Basic form** **Augmentative form**

a.	à-pésé	‘girl’	á-pésé	‘a big girl’
b.	è-sápát	‘boy’	á-sápát	‘a big boy’
c.	à-báwɔ́t	‘piece of wood’	á-báwɔ́t	‘a big piece of wood’

d.	ì-tògò	'house'	á-tógó	'a big house'
c.	ì-kókù	'child'	á-kókù	'a big child'
d.	è-mɔ̂ŋ	'bull'	á-mɔ̂ŋ	'a big bull'
e.	è-twân	'person'	á-twân	'a big person'

There is minimal change in the morphology of the derived augmentative forms as compared to their basic forms. Changes in this process involve tone changes and vowel quality of the prefix. Most nouns in this group have a high tone spread. The contrast in gender and number is neutralised in augmentative forms. Lexical members for these forms are both animate and inanimate.

4.2.3 Verb to noun derivation

Verb to noun derivation involves derivation of a nominal stem from a verbal base. This is always done in affixation to the word root though sometimes phonological modifications occur within a verb form (cf. Group 4). The derivation applies both to the animate and inanimate nouns as illustrated in (18) below.

18. Derivation of animate nouns from verbs

	Verb		**Noun (+animate) SG)**	**(PL)**	
a.	à-pjâ-rè	'to sweep'	lò-kà-pjè-n(i)	lù-kà-pjè-kà	'sweeper'
b.	àkí-sìsjâ	'to teach'	lò-kà-sísjà-n	lù-kà-sísjâ-k	'teacher'
c.	à-búljà	'to play'	lò-kà-búljà-n(i)	lù-kà-búljâ-k	'player'
d.	à-túbjò	'to circumcise'	lò-kà-túbò-n	lù-kà-túbò-k	'circumciser'
e.	à-cúd	'to bewitch for'	nà-kà-cúdàn(i)	à-kà-cúdà-k	'female witch'
			lò-kà-cúdàn(i)	ì-kà-cúdà-k	'male witch'

Animate nouns are derived from verbs by the derivational prefix **ka-** prefixed to the verb plus the derivational element **-n** for singular and **-k** for plural. In order for it to be a proper noun, it also needs a gender marking prefix. Gender morphemes for derived nouns are **lo-** and **na-** (also present on relative clause formations as will be discussed further in section 5.4) for masculine and feminine, respectively. A number of morphological variances apply to the verb stem and suffixes as follows: Firstly, the noun term in (18a) is formed from a set of formally unrelated

verb suffixial forms. Suffixation in this noun is much more complex as the elements of the final syllable **-re** undergo merger processes leading to the formation of a single syllable **pjè-n** that is a combination of the root and the suffix. The final syllable of (18a) thus undergoes changes from open to closed, accompanied by change of vowel quality and consonant. Also, stems of the derived nouns of (18b), (18c), (18d) and (18e) remain unchanged, i.e. they appear the same as those of the verb category they are derived from. The difference between the categories is at the level of gender prefixes and derivational suffixes. The productive nominaliser **ka-** prefixed to the verb together with the **-n** suffixes for singular and the suffix **-k** for plural forms are used to derive nouns from verbs in (18b), (18c) and (18d), respectively. For (18e) gender markers, that is, **na-** for feminine and **lo-** for masculines are used together with the derivative morpheme for singulars while the plural forms have the gender prefixes **a-** or **i-** for singular and plural, respectively. The two latter gender prefix forms apply to the derived plural nominal term for 'witch' only.

Further, inanimate nouns can be derived from verbs. Consider the following examples:

19. Derivation of inanimate nouns from verbs

	Verb	**Noun (-animate)**	
a.	à-búljâ 'to play'	à-búljâ-sìnóì	'game'
b.	à-túbjô 'to circumcise'	à-túbjô	'circumcision'

Inanimate nouns are derived from verbs in different ways. For (19a), the suffix **-sinoi** is added to the verb for 'play' to derive a noun. The resulting shape for the nominalised form is verb-STEM + sìnóì. There is conversion of the term in (19b), which is used both as a noun and as a verb with no morphological changes involved. As to whether it is a verbal-noun or gerund or noun is determined by context. Both nouns have feminine gender prefixes that are similar in shape to the infinitive marker of the verb from which they are derived.

Alternatively, the concrete noun could be a derived stem that is further derived to form an abstract noun form as with (20a) and (20c). An abstract form 'fatness' in (20c) is derived directly from the verb 'to fatten' by suffixation. Both concrete and abstract nouns derived from verbs acquire gender prefixes.

20.	**Verb**	**Concrete noun**	**Abstract noun**
	a. -cúd ‘bewitch’	è-/lo-kà-cúd-àn ‘witch’ (male) à-/na-kà-cúd-àn ‘witch’(female)	à-cùd ‘witchcraft’
	b. àkí-tʊ́m ‘to fatten’	-	á-tʊ́m-ès ‘fatness'
	c. à-túbjò ‘to circumcise’	lò-kà-túbò-n ‘circumcisor’	à-túbjò ‘circumcision’

The above derivational processes in (20a) occur with the verbal root **-cúd**: Concrete verbs are derived from the verbal root by the suffix **-an**, an abstract nominalizer. The derived concrete noun becomes an abstract noun when the derivational morpheme is dropped.

Abstract nouns can also be derived from stative verbs. This is illustrated in (21) below.

21. a. é-dáŋ-à-dáŋ-à-rà	‘(s)he is stupid’	à-dáŋàdáŋà-nùtù	‘stupidity’	(abstract)
b. á-báŋànù	‘I am foolish’	à-báŋànù-tù	‘foolishness’	(abstract)

Example (21a) has a reduplicated stem. Reduplication is a very rare morphological phenomenon that occurs to the abstract noun following the reduplicated stative verb stem that it is derived from. Apart from the introduction of a gender morpheme in place of a person prefix, the suffix **-ra** in the stative verb is replaced with **-nutu** to derive the abstract noun. The stative verb root that undergoes reduplication consists of a single syllable with a CVC structure such as **-dáŋ-**. Generally, the nouns that undergo reduplication are limited to this example as identified from the elicited data. Reduplication, a wide spread phenomenon in world’s languages, does not express any expanded meaning that is far from its base form meaning but is used as a strategy for intensification (cf. e.g. Anderson 1992, Aronoff 1988). In (21b), an abstract noun is derived from the stative verb by affixing the suffix **-tu** to it. The gender marker on the derived noun is similar in shape to the first person singular prefix though it is different from those of other person markers that may be prefixed to the verb.

Mostly, the derivation in (19), (20) and (21) is “parasynthetic”, a term coined by Grevisse (1993: 233) to refer to a derivation obtained by adding a prefix and a suffix to the root. For Ateso, the nouns are derived by suffixes only or by prefixes and suffixes as illustrated in these examples. The verb or noun suffix is replaced by a derived noun prefix only or by addition of a suffix to the root of the two word categories.

4.2.4 Derivation of abstract nouns from concrete nouns

As stated above, noun derivation in Ateso is a morphological operation that most often involves a change in word class. Additionally, derivation can involve a change in one class category to another category within the same word class. Abstract nouns can be derived from concrete nouns that are not derivations of the verb as discussed in section 4.2.3.

The derivation of abstract nouns occurs either by addition of suffixes **-nutu** or **-tin** to the concrete noun forms. Consider the following examples in (22).

22. Derivation of abstract nouns from concrete nouns

	Concrete noun		**Abstract**	
a.	í-kòkú	'child'	à-dwé-nùtù	'childishness'
	í-dwé	'children'		
b.	à-cícíŋ	'miser'	à-cícíŋ-à-nùtù	'meanness'
c.	è-pírjânà	'intelligent person'	à-pírjâ-nùtù	'intelligence'
d.	è-páɟàn	'relative'	à-páɟàn-ì-tìn	'kinship'

All derived abstract nouns have the gender prefix **a-**. The gender prefixes **i-**, **a-** and **e-** change into **a-** when abstract nouns are formed from concrete nouns. The abstract noun **à-dwé-nùtù** 'childishness' is derived from the plural concrete form **ì-dwé** 'children'. The epenthetic vowel **-a-** and **-i-** is used for syllabification in (22b) and (22d), respectively. No tonal changes occur in the noun roots after addition of derivational extensions.

Summing up, section 4.2 describes different nouns which are formed from various word categories by derivational processes. The derived nouns are subject to variability that results from different properties of the base forms.

Generally, the means of noun inflection and derivation are suffixation, component change in the stem, and tone alternation. Inflectional and derivational affixes are readily segmentable. Noun roots mostly consists of an initial consonant, a vowel with different qualities, either [+ATR] or [-ATR], and a final consonant. The vowels of the root may also be exponents of derivation or inflectional morphemes.

The next section presents a detailed overview of the Ateso nominal modifiers.

4.3 Nominal modifiers

Nominal headed NPs offer a wide set of possibilities. The head of a common nominally-headed NP is always a noun followed by modifiers. Noun modifiers are words found in noun phrases where their function is basically to add new information to the noun. Nominal modifiers include: demonstratives, relative clauses, quantifiers, adjectives and numerals.

In terms of positional dichotomy, most modifiers are preceded by the noun head in phrases with unspecified contexts. The information structure for the nouns remains the same even when they occur with their modifiers. They take agreement markers for number and gender in relation to the nouns that they modify. Demonstratives and numerals serve as the functional classes of the noun phrase.

In the section below, elements that constitute an NP are examined. Internal constituency of each component that is found in noun phrases is analysed. The concord between the noun and its modifiers is also highlighted.

4.3.1 Demonstratives

The form of demonstratives in the language depends on the position of the speaker or hearer in relation to the object being referred to. Demonstratives have been classified as either proximal (near the speaker) or distal (distant from the speaker) (Quirk et al. 1975). Payne (1997: 102) also refers to demonstratives as "deictic determiners" since they have spatial reference. Demonstratives in Ateso not only encode proximal and distal deixis, which majorly point to a spatial relation; the system includes another position that specifies that it is away from both the speaker and hearer. They refer to both animate and inanimate entities and thus encode the three gender forms in the language. Number is also distinguished by the demonstratives. The realisation of the Ateso demonstratives is represented by lexical components shown in Table (4.3) below.

Table 4.3: Ateso noun demonstratives

Gender	Near the speaker and hearer		Near the hearer and far from the speaker		Away from the speaker and hearer	
	SG	PL	SG	PL	SG	PL
M	lo	lu	ŋol	ŋul	ɟe	kwi
F	na	nu	ŋin	ŋun	ja	kwi
N	lo	lu	ŋul	ŋul	ŋil	kwi

Deictic categories (that is, the proximal, near distant, far distant) apply to entities that approximate distances from the speaker and hearer. Their interpretation relies on the discourse context as determined by the physical space between the speaker and the hearer. There are separate genders as well as singular and plural sets. The direct link between gender and number is illustrated in (23) below.

Proximal locations near the speaker and hearer are expressed by monosyllabic demonstratives of the shape CV, such as **lo** and **na**. Masculine/diminutive and number for positions near the speaker are expressed by **lo** and **lu**. Distal demonstratives are used to encode a two-way locational relationship between the marked referent, the speaker and hearer, and a shifting spatial reference point. For instance, distal demonstratives **ɟe, ja**, **ŋil**, and **kwi** are used when pointing at things that are far from both the speaker and hearer. The referents are physical entities which can be animate or inanimate. Distal plural demonstrative **ŋol** is used for referents that may or may not be visible to both the speaker and the hearer at the time of speaking. They both indicate a referent away from the deictic centre, the speaker. All the referent interpretation in Table (4.3) is determined by pragmatic and shared knowledge between the speaker and addressee.

In an NP, where the N is the head, demonstratives occur in a post-head position. Even in unelliptic occurrence, demonstratives do not undergo any morphological changes. To demonstrate the position and morphological make up of demonstratives in NPs, the following examples will suffice.

23. a. è-sáp-át ló
M-boy-SG this/SG
'this boy'

b. à-bɛ́rʊ̀ nú
F/PL-woman this/PL
'these women'

c. è-kìcòlòŋò ŋíl
M/SG-chair that/SG
'that chair'

d. ì-còlòŋò kwî
M/PL-chair this/PL
'those chairs'

e. é-kítàbò ló é-nèrì-tó ɔ̂nì
D-book SG 1-talk-PL 1PL
'this book (we talked about)'

The full range of features only becomes clear once agreement patterns are brought in, hence all examples in (23) have demonstratives that agree in number and gender with the noun heads (e.g. in (23a) **èsápát** 'boy/SG' takes the demonstrative **ló** 'this/SG'). Information on different positions of beings and things in relation to the position of the speaker and hearer are also captured by the demonstratives, as is the case with (23b), where the position of the 'women' is near the speaker and hearer.

Gender prefixes are overtly expressed on both the head noun and the demonstratives. For example, the demonstrative **lo**, masculine, in (23a) corresponds to the masculine gender morpheme **ɛ-** prefixed on the noun. A systematic account of spatial relations in examples (23) indicates that the gender and number affixes marked on the noun are similar to the gender and number of the demonstratives.

Further, a number of demonstratives are used to point at positions in space relative to the position of the addresser (deictic centre). These set of demonstratives are listed in (24) below:

24. a. nàmà 'there' (away from the speaker)
b. ŋínà 'there' (far from the speaker)
c. né 'here'

d. né-pè-né ‘just here’

e. nén ‘there’ (close to the addressee)

f. né-pè-nén ‘just there’

g. wàíló/làíló ‘this side’

h. wàíɟé ‘that side’

Demonstratives **né** ‘here’ and **nén** ‘there’ in (24c) and (24e) can be reduplicated for emphasis. In this case, an Ideophonic Word **-pe-** occurs between the reduplicated **né** roots as with (24d). The root **nén** in (24f) is reduplicated in the same way as **né**, the only difference being the nasal bordering the ideophonic word in the initial adverbial root is deleted to avoid an illegal CC that is ‘disallowed’ in the language. Whenever demonstrative forms **ŋínà** or **né** in (24b) and (24c), respectively, are preceded by objects, a prepositional element will be prefixed to it. The syntactic behaviour of these demonstratives will be as follows:

25. a. é-ɲèk ì-sàp nèsí kà-ŋínà
3SG-leave M/PL-boy/NOM him/ABS PREP-there
‘the boys left him there’

b. ékótòkìnà íɟò àkígwòò kà-né
it.is.necessary 2SG stand PREP-here
‘it is necessary for you to stand here’

Generally, demonstratives are located at clause final positions as is the case with (25a) and (25b) where **ŋínà** and **né** are located at clause final positions. Example (25b) consists of the main predication **é-kótòkìnà** expressing deontic modality (‘it is necessary that’) followed by a dependence clause.

The next section deals with the quantifiers and numerals. Quantifiers and numerals together with other word classes such as adjectives and adverbs participate in a very limited number of morphological processes.

4.3.2 Quantifiers

Ateso's quantifiers are used to express a number or quantity. Quantifiers either follow or precede the nouns they modify which together form the noun phrase. An utterance may consist of a noun phrase only or a noun plus a quantifier. The free-standing quantifiers are presented in (26).

26. a. kèré ‘every’
    b. ìdís ‘few/little’
    c. ìpwâkà ‘many
    d. àcé ‘some’
    e. nìcé ‘other’
    f. ŋíl/ŋín ‘each’

With the exception of (26f) where the quantifier **ŋíl/ŋín** ‘each’ precedes the noun (as illustrated by examples in (28)) that it modifies, the rest of the quantifiers are positioned in the same way as the demonstratives, that is, they occur at post-noun positions as illustrated in (27) below.

27. a. í-túŋà kèré
    D-person all
    ‘all people’

    b. í-túŋà àcé
    D-person some
    ‘some people’

    c. í-túŋà ì-dís
    D-person D-few
    ‘few people’

    d. ɛ́-kítàbɔ́-í ì-dís
    D-book-PL D-few
    ‘few books’

Plurality and singularity is marked on both the noun and the quantifier by inflection except for **kèré** and **àcé**. The Ateso equivalent for the English *all*, *some* and *few* express an approximation of number. The quantifier + noun order is illustrated in example (28).

28. a. ŋíl ì-tògò
each M/PL-house
'each house'

b. ŋín é-twân
each D-person
'each person'

c. ŋíl à-kàtɔ̀ŋɔ́tɔ̀ŋɔ́t
each F/SG-group
'each group'

d. ŋín í-kókù
each D-child
'each child'

The quantifier **ŋín** 'each' is used with animate nouns while **ŋíl**, with meaning equivalent to the first quantifier, is used with inanimate nouns. All the nouns have a plural meaning with singulative forms, as is the case with, for example, **ìkòkú** in (26d) which refers to more than one child despite being in singulative form.

The highest frequency of quantifiers takes the constituent order Noun Head + Quantifier. The quantifiers are further illustrated in (29), (30) and (31).

29. a. ítúŋà kèré 'everybody'
b. ítògò kèré 'every house'
c. àkàtɔ̀ŋɔ́tɔ̀ŋɔ́n kèré 'every group'
d. ídwé kèré 'every child'

The NPs in (29) are initiated by a noun which is followed by the quantifier **kèré** ‘every’. The plural quantifiers do not affect plural marking on the noun stem (e.g. in (29a) where **ìtúŋà** refers to people).

30. a.	í-tògò	lò-cé	‘the other house’
b.	à-kàtɔ̀ŋɔ́tɔ̀ŋɔ́t	nà-cé	‘the other group’
c.	é-twân	nì-cé	‘the other person’
d.	í-kókù	nì-cé	‘the other child’

The quantifiers agree in number and gender with the noun they modify. For example, the N/SG gender/number on the noun **ì-kókù** and that marked on **nì-cé** agree. Illustrations (30a) refer to an inanimate form while (30b-d) refer to animate forms. The plural form for **nìcé** is **nàcé**, used in (30b). The following examples in (31) show the appearance of **ìdjôŋí** ‘small’ and **àdìs** ‘little’.

31. a. èsúkwârí ì-djôŋí
sugar D-small
‘a little sugar’

b. àkìpì à-dìs
water D-little
‘little water’

c. àkìrjâ à-dìs
flour D-little
‘little flour’

Example (31a) has a different quantifier as compared to the forms for ‘little’. The quantifier in this example occurs in a stative verb form **ì-djôŋí** ‘it is small’ though the literally meaning of the resulting segment is ‘a little sugar’ rather than ‘it is small sugar’ as is the case with other mass nouns. For all examples in (31), the modifiers agree in gender and number with the nouns.

4.3.3 Numerals

The Ateso numeral system is made up of cardinal numerals and derived numbers. Numerals are basically nouns though they have unique characteristics that are discussed in the following sub-sections.

4.3.3.1 Cardinal numerals

Cardinal numerals are numbers which refer to the number of beings or things (cf. von Mengden, 2010). The Ateso cardinal numerals can be classified into two sets: basic and complex numerals. The two sets of numerals will be the subject of discussion in this section.

4.3.3.1.1 Basic numerals

Based on structural and distributional criteria, basic or core numerals are 1-5, together with the numerals 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 and 1000. The basic numerals are fairly unproductive morphologically as they occur mostly in root form though they occasionally occur in bound forms. The basic numerals ranging from 1 to 1000 are shown as follows:

32.	a.	ípé/ èdópè	‘one’	j.	àkáíʃà ákáɲ	‘fifty’
	b.	ìárê	‘two’	k.	àkáíʃà ákáɲ kà pè	‘sixty’
	c.	ìúní	‘three’	l.	àkáíʃà ákáɲ kà árê	‘seventy’
	d.	ìwóŋón	‘four’	m.	àkáíʃà ákáɲ kà únî	‘eighty’
	e.	ìkáɲ	‘five’	n.	àkáíʃà ákáɲ kà wóŋón	‘ninety’
	f.	ìtómón	‘ten’	o.	àkwâtátá ápé	‘one hundred’
	g.	àkáíʃà árê	‘twenty’	p.	èlʊ́kʊ́mít	‘one thousand’
	h.	àkáíʃà áúnî	‘thirty’	q.	ìlʊ́kʊ́mín íárê	‘two thousand’
	i.	àkáíʃà áwóŋón	‘forty’			

The high tone is the most dominant tone for the numeral stems. Numerals 1 to 5 and 10 are the most basic as they appear in fairly uninflected form. The 1-5 values are appended to other numerals with minor adjustments on their prefixes, which will be explained in detail below, though their tonal shape remains the same. Numerals for 60, 70, 80 and 90 have a ‘tens’ and ‘five’ as their basic form linked to underived 1-5 numerals by an overt conjuctive particle **kà**. The particle **kà** is followed immediately by a basic numeral form. All the basic numerals that

follow the particle delete the onset vowels. In this case, the particles serve a grammatical function as a conjunction expressing the meaning of addition. It is not easy to give English equivalents for particles. They can be glossed simply as 'P' and may loosely be translated as 'and' for the case above or 'with' as will be seen in other instances. They are grammatical elements since they occur on their own as constituents of the numeral clause and may not be analysed as numeral components since they also co-occur with other phrase types. Numerals for 100 and 1000 have a completely new set of onset reference of hundreds and thousands with no additional basic form to the later numeral.

4.3.3.1.2 Complex numerals

Complex numerals are all derived into two sets. The first set of the derived forms is composed of the **ìkáɲ** 'the fifth' numeral form combined with their constituent numerals 1-4 (**ìpé**, **ìárê**, **ìúnî**, **ìwóŋón**). The second set is made up of two-term compounds in which the first term is the free form **-tómón** 'tens' numeral combined with basic numeral components. The illustration of complex numerals is not exhaustive. It excludes most complex numerals as they can easily be predicted and reproduced through regular occurrence of forms that are added to the basic numerals. There are a few structural modifications involving morphological changes of the number words that are added to the basic numerals.

33. a. ìkáɲ kà pè 'six'
    b. ìkáɲ kà árê 'seven'
    c. ìkáɲ kà úní 'eight'
    d. ìkáɲ kà wóŋón 'nine'

The prefix **i-** for the numerals 1 through 4 is deleted before the latter are combined with 5 to form numerals 6-9. The particle **ka** links the 5 numeral to the 1-4 components in progressive count from 6-9. Numerals 11 through 19 are formed by combining the 10 numeral with the numerals 1-9. The prefix **i-** in the numerals 1-4 is, as with 6-9, deleted in this combination. This is illustrated by the examples (34a-b) below for 11 and 12, respectively. The same case applies to numerals such as 18 and 19 in example (34c) and (34d), respectively, where the prefix **ka-** replaces **i-**; also, a velar consonant is prefixed to the 5 numeral which comes between the 10 and 1-4 numerals.

34. a. ìtómón kà pè ‘eleven’
    b. ìtómón kà árê ‘twelve’
    c. ìtómón kìkáɲ kà únî ‘eighteen’
    d. ìtómón kìkáɲ kà wóŋón ‘nineteen’

Numerals from 21 to 99 are easily predictable. They involve the basic numeral for 20, 30, 40, 50, 60, 70, 80 and 90 combined with the numerals 1-9. The prefix **i-** in the numerals 1-5 is modified to **ki-** before forming part of this combination.

35. a. àkáíʃà árê kìpè ‘21’
    b. àkáíʃà árê kjârè ‘22’
    c. àkáíʃà ìúní kìpè ‘31’
    d. àkáíʃà àwóŋón kìpè ‘41’
    e. àkáíʃà ákáɲ kìpé ‘51’
    f. àkáíʃà ákáɲ kà pé kìpè ‘52’
    g. àkáíʃà ákáɲ kà árê kìárê ‘72’

The 100 numeral through 999 involves the combination of 100 and the numerals 1 to 99. This becomes more complex as most consultants for this study were only comfortable in listing the numerals 1-20. Complex numerals are rarely used and in most cases, they are replaced by the English or Kiswahili ones (e.g. **èmjâ** ‘ahundred’, to which different basic numerals are added to depending on the number being expressed. The word is borrowed from the Kiswahili form **mia** ‘hundred’) whenever the numbers beyond 99 or 999. The same structure applies to the 1000-9999 numerals which combine the 1000 numeral with the numerals 1-999 as illustrated below:

36. a. ìlʊ́kʊ́mít ‘one thousand’
    b. ìlʊ́kʊ́mín íárê ‘two thousand’

Other forms occurring from 1-999 are added to **ìlʊ́kʊ́mín** to represent the different values for thousands.

4.3.3.2 Ordinals

Ordinal numbers occurring as lexemes refer to ordered sequencies of entities such as first, second, third, etc. They are formed by adding the suffix **-et** to the cardinal numerals. A

segmental irregularity exists in 'first' which has a complete new form and in 'sixth, seventh, eighth, ninth, and tenth' the particle **ka** is deleted. Diminutive ordinals for Ateso are listed as follows:

37. a. jèn sòdít '1st'
    b. jèn ìárèt '2nd'
    c. jèn ìúníèt '3rd'
    d. jèn ìwóŋónèt '4th'
    e. jèn ìkáɲèt '5th'
    f. jèn ìkáɲèt àpè '6th'
    g. jèn ìkáɲèt àrê '7th'
    h. jèn ìkáɲèt àúnî '8th'
    i. jèn ìkáɲèt àwóŋón '9th'
    j. jèn ìtómónèt '10th'

The segment **jèn**, an ordinal lexeme precedes all ordinal diminutive forms. On the other hand, ordinal forms are preceded by gender forms **lo** for masculine forms, while feminine forms are indicated by **na** which also precedes the ordinals. For illustration, the masculine and feminine form for the 4th ordinal number will be **ló ìwóŋónèt** and **ná ìwóŋónèt**, respectively. Gender forms are detached from ordinals.

4.3.3.3 Noun plus cardinal numbers

Just like other nominal modifiers, when cardinal numbers modify nouns, they follow the noun in an NP structure. They are directly post-posed to the noun with no overt marker linking the noun and the cardinal number modifiers. The numerals modifiers agree in number with the nouns that they modify.

38. a. í-twân ípé
        D-person one
        'one person'

b. í-túŋà ìárê
D-person two
'two people'

c. è-tàtàìt ìáre
M/PL-grandchild two
'two grandchildren'

d. à-pésúr(ù) ìárê
F/PL-girl two
'two girls'

e. è-tàtàìt àpè
M/SG-grandchild one
'one grandchild'

f. à-pésé ápé
F/SG-girl/SG one
'one girl'

The singular feminine and masculine forms (e.g. in (38e-f)) occur with **ápé**, a slightly modified form of **ípé** 'one'. The rest, including the diminutive singular and plural and the plural masculine and feminine are modified by cardinal numerals in their basic form (see e.g. 38a-d).

There are no decimal numbers attested in the language. Number and quantity is basically expressed by numerals and quantifiers.

4.3.4 Adjectives

Ateso does not have a natural class of adjectives. Instead, it has a class of stative verbs that are used in place of adjectives; a characteristic shared by many African languages as observed by Watters (2000: 195). Since there are a fairly large number of stative verbs that are used in place of adjectives, the following discussion will begin with these forms before proceeding to a residual class of adjectives that are found in the language.

4.3.4.1 Stative verbs

Consider the following examples:

39. a. é-láŋír
3SG-heavy:NPAST
'(s)he is heavy'

b. é-gógóŋ
2SG-powerful:NPAST
'you are powerful'

c. é-làŋìr
3SG-heavy:PAST
'(s)he was heavy'

d. é-gògòŋ
2SG-powerful:PAST
'you were powerful'

Though the forms in (39) serve in attributive or predicate-adjective like function, they are not adjectives but stative verbs because they are inflected for person and tense. The verb **é-láŋír** in (39a) has the prefix **e-** for third person singular and a high tone on its root for non-past tense. This is similar to the verb **é-gógóŋ** in (39b) which has the prefix **e-** for second person singular and the high tone on its root marking the non-past tense. On the other hand, the same verbs in (39c) and (39d) are inflected for third person singular and second person singular, respectively; and they have a low tone for past tense.

The different stative verbs serve in attributive or predicate-adjective function where they can be used to express different properties such as colour, dimension, age and value. More examples of stative verbs are presented in Table (4.4); divided into 3 groups. Group A relates to size, distance, texture and age. Group B represents taste, quality, and condition while C consists of expressions of state and sound.

Table 4.4: Stative verbs expressing property concept

A		B		C	
é-lálá	'it is wide'	ɛ́-pjáná	'it is tasteless'	ɛ́-láŋír	'(s)he is heavy'
é-dít	'it is little'	ɛ́-dwár	'it is bitter'	é-rònò	'(s)he was bad'
ɛ́-dídíŋ	'it is narrow'	ɛ́-ɟíɟím	'it is sweet'	é-cò	'they were clever'
é-lwànà	'it was far'	ɛ́-láɛ́	'(s)he is good'	á-bàrà	'I was rich'
é-nónók	'it is soft'	ɛ́-tàpànà	'it was expensive'	é-dérí	'he is handsome'
é-ùɟà	'it was long'	ɛ́-cáɛ́	'(s)he is clean'	á-djò	'I am slow'
é-rùcìcì	'it was tiny'	é-mìlìmìl	'(s)he was sparkling'	á-cèl '	'I am noisy'
ɛ́-pwáká	'they are many'	ɛ́-lákít	'it is salty'		

As can be seen from the different examples in Table (4.4), stative verbs can take any of the three person markers, which are first, second and third person singular or plural, as determined by the type and number of the utterance the speaker wants to express.

Further, stative verbs not only serve in the predicate function but they are also modifiers in noun phrases. This is discussed in the following sub-section.

4.3.4.2 Relative clause and noun derivation

Generally, adjectives not only play a role in a predicate function but also functions as modifiers in noun phrases. Ateso has two options: Firstly, the function of a modifier is expressed by a relative clause as illustrated in (40) below.

40. a. è-ɟákà-ít lò-ètúmít
M-chief-SG REL-fat
'the fatty chief [lit. the chief, who is fat]'

b. é-músàgò-t lò-àcàmàr
D-butcher-SG REL-agree
'an agreeable butcher [lit. the butcher, who is agreeable]'

c. à-térà-k nù-àlàkàrà
F-bride-PL REL-happy
'the delightful (or happy) bride [lit. the bride, who is happy]'

The relative clause is formed by prefixing the relative pronoun **lo-** to the stative verbs for masculine and diminutive forms as with **lò-ètúmít** in (40a) and **lò-àcàmàr** in (40b), respectively. Feminine forms use the relative pronoun **nu-** as with **nù-àlàkàrà** in (40c). In terms of positioning, the N is followed by its modifier (e.g. the noun **è-ɟákà-ít** is followed by **lò-ètúmít**).

Secondly, Ateso has nouns that are derived from stative verbs serving in attributive function in the noun phrase. The nouns are derived from stative verbs by prefixation of gender and derivative morphemes to these verb stems. The nouns derived from the stative verbs in (41a) and (41b) function as modifiers in (41c) and (41d), respectively.

41. a. é-kùdòkìnà
3SG-crook:PAST
'(s)he was crooked'

b. é-úrjáná
3SG-shallow
'it is shallow'

c. è-múrwò-k lù-kà-kùdòkìn-àk
M-traditional.doctor-PL M/PL-DER-crook-PL
'the crooked traditional doctors [lit. the traditional doctors, the crooked ones]'

d. á-ítwâtà lò-kà-ùrjân-àn
D/SG-dam N/SG-DER-shallow-SG
'a shallow dam [the dam, the shallow one]'

The nominalised form **lù-kà-kùdòkìn-àk** is derived from the stative verb **è-kùdòkìnà** by droping the person marker and adding the masculine gender prefix **lu-**, the derivational morpheme ka- and the plural suffix **-an** to the verb root kùdòkìn. Also, the verb **é-úrjáná** is nominalised by affixing the diminutive **lo-** and the derivation morpheme **ka-** to the root **ùrjân** plus the singular marker. The two nominalised forms are then used as modifiers.

As soon as the stative verbs are used as modifiers to the noun phrases, they are nominalised. The nominalised forms are characterised by gender and number marking. For instance, the nominalised form **lù-kà-kùdòkìn-àk** has the masculine gender prefix **lu-** and the plural suffix **-ak**. The constituent order is the noun followed by its modifier, i.e. the derived noun.

Finally, the class of colour terms represent a residual class of adjectives. These adjectives are presented in sub-section 4.3.4.3 below.

4.3.4.3 Colour terms

Ateso has colour terms with semantics similar to many languages of the world. Colour terms constitute a residual class of adjectives because they do not derive from adjectives but have characteristics of their own. They are an important semantic domain that follows grammatical patterns similar to those of adjectives. There is the colour **àkwáŋ** for 'white', **àríŋá**, 'red' and **èrjôn** 'black'.

Most of the colour terms have related minor colour terms. Cattle as for Iteso are a symbol of wealth. The language thus has special colour terms that refer to cattle. Nominalised forms that are used to refer to cattle are derived from major colour terms. In this case, there is no need to mention the referent before the adjectives if the cattle are within the context of speech.

Table 4.5: Colour terms for cattle

Major colour terms	**Derived colour terms (cattle reference)**	**Related English gloss**
àkwáŋ	lò-kà-kwâŋán	'the white one'
	M/SG-DER-white	
àríŋá	lò-kà-ríŋán	'the red one'
	M/SG-DER-red	
èrjônó	lò-kà-kírjônón	'the black one'
	M/SG-DER-black	

Brown or any colour that tends towards red is simply referred to as **àríŋá** 'red'. Generally, colour terms for cattle consist of gender prefixes such as the masculine **lo-**, a derivational morpheme

ka- and the root of the basic colour terms as presented in Table (4.5). The core roots for cattle colour terms are equivalent to that of general colour terms that can be used to distinguish objects of different colours as is the case with (42) below.

42. à-kàlàmú nà-kà-rìŋàn
SG-pen F/SG-DER-red
'the pen the red pen'

A summary of the gender prefixes that apply in the relative clauses and nominalized forms that are used in place of adjectives are given in Table (4.6) below.

Table 4.6: 'Adjectival' gender prefixes

Gender	**SG**	**PL**
M	lo-	lu-
F	na-	nu-
D	lo-/ni-	lu-

4.3.5 Possessive noun modifiers

Nouns can be modified by other nouns following the same order as the genitives which are discussed later in chapter nine. The modified noun phrase constitutes a head noun followed by a possessive noun modifier. The possessor-possessed relatioship of the two nouns is visibly characterised by the presence of a prepositonal marker/clitic **k-**. This marker fuses with the gender prefix of the possessor noun. Other constituents do not intervene between the two nouns linked by prepositonal marker/clitic. The illustration of the possessive noun modifiers is given in (43).

43. a. àkòù k=ìtwàn
head/SG PREP=man/SG
'man's head'

b. àkwès k=ìtùŋà
head/PL PREP=man/PL
'men's heads'

Examples in (43) are dependent associative nouns which imply inalienable or inseparable possession. Separation of the associative and the associated noun entity leads to anomaly or malfunctioning of the main entity. The resulting NPs are used to denote possession.

Overall, the internal structure of each modifier has been analysed. Modifiers examined include descriptive modifiers derived from stative verb roots, demonstratives, numerals and quantifiers. The agreement phenomenon between the noun and its modifiers has also been highlighted in the section. Possible linear order of the basic NPs found in the corpus is as follows:

N

N Descriptive Modifier

N NUM

N DEM

N QUANT

(QUANT) N

N (Possessed) N(Possessor)

Principally, NPs in Ateso have a syntactic nature of rightward branching, where the modifiers follow the head noun except for one quantifier, with the English meaning equivalent 'each' which precedes the head noun. There is no strict order in the appearance of the peripheral constituents in the basic NP and thus modifiers can occur in positions following each other. However, the elements within NPs may be ordered as follows: the noun, followed by the demonstrative, a descriptive modifier, a numeral (and other modifiers) as is shown by example (44) below.

44. í-tògò-ì ŋúl lú-cí-sí ìúnî
D-house-PL D/PL D-small-PL three:NUM
'those three small houses'

Syntactically, the resulting NPs serve as the core or oblique arguments of the verb. They occupy the subject and object position. Subjects and objects are the core arguments of the verb.

4.4 Conclusion

Nouns form the semantic core and syntactic head of an NP. This chapter established the morphological characteristics of the noun categories which are defined based on inflectional classes. The categories are established using a range of morphological patterns that is completely predictable. A noun belongs to one of the six categories based on number marking patterns. The semantic criterion for categorisation of nouns in Ateso is of less importance and is therefore not a criterion for classification of nouns. The number classes based on inflection are subject to fusional changes due to internal restructuring of native nominal forms and features attributed to contact and borrowing.

There is no phonological conditioning factor established so far that guides the distribution of tone on nouns. Most of the nouns in the same groups show tonal irregularities. Therefore, tonal pattern analysis is not relevant to nominal categorisation. Brief comments on tone are only cited whenever regularities are observed. In terms of the internal constituents of the noun, the core of the noun is the noun root. All the nouns are either monomorphemes or build on single roots.

The language has a fairly wide range of grammatical domain that occurs with nouns. Thus, the chapter has also investigated the relationship between the noun and its modifiers. Major properties of NP constituents in relation to their modifiers have been discussed. The internal constituency and grammatical characteristics of noun modifiers, namely, descriptive modifiers, demonstratives, numerals, quantifiers and possessive modifiers are defined based on their morphological properties, distributional properties and basic syntactic functions. The discussion indicates the location of modifiers with respect to the noun. The first constituent of an NP is the noun followed by the modifiers, except for **ŋíl** and **ŋín** ‘each’ or when changed by information structure. Morphologically, Ateso has a fairly simple noun structure but more complex verb structure. The verb is analysed in chapter seven and eight.

Chapter Five: Pronouns and pronominal alignment

Ateso has pronouns that can be used in place of lexical nouns or noun phrases.[20] Because of overt pronominal subject and object marking on the verb, the independent pronouns play a role primarily at the pragmatic level, e.g. in topicalisation and focussing strategies, as further discussed below. The following pronouns are found in the language: personal, possessive, interrogative, and relative pronouns. Apart from personal pronouns, which do not mark gender, overt gender distinctions exist among the other pronouns. Possessive, interrogative and relative pronouns have combinations of gender-sensitive agreement markers with the first, second and third person categories with singular and plural number.

The present study separates the noun and pronoun categories based on two main reasons. Firstly, pronouns are used in place of nouns, that is, they are separate categories from nouns. They exclude each other in syntactic positions, explicitly; a pronoun cannot be an alternative head to a noun in an NP. Secondly, pronouns have a separate status from the nouns as they are also expressed on the verb. Moreover, contrary to nouns, pronouns cannot be modified except by way of attitude markers.

The following sections will establish Ateso's personal pronouns section 5.1, pronominal alignment section 5.2, possessive section 5.3, relative section 5.4, and interrogative pronouns section 5.5, conclusion section 5.6. Pronominal alignment is discussed immediately after personal pronouns as it relates to the behaviour of the core arguments (subject and object) to the verb, both as syntactic constituents and with respect to verbal inflection.

5.1 Personal subject pronouns

Ateso's pronominal system consists of inflectional personal prefixes and independent personal pronouns. Both categories make distinctions in person and number. Person/number categories in Ateso are classified into first, second, and third-person singular and plural.

[20] The pronoun forms are units that are mentioned by Kroeger's (2005: 136) as referring either to someone or something in the immediate context (time and place) where the speaking is taking place; or it may refer to something which has been previously mentioned in the same discourse.

5.1.1 Inflectional personal prefix pronouns

Agreement is a category that marks the relation between words in a sentence. It consists of features such as person, number and gender. Just like other Eastern-Nilotic languages (e.g. Turkana and Toposa), Ateso's person/number inflectional marker prefixes attach to the verb stem even when verbs have an overt independent pronoun or noun as a subject. Agreement is mostly triggered by the subject. Though inflectional personal prefixes have clear distinct forms and distributional properties as compared to the independent pronouns, they serve the same referential function as independent pronouns. They are realised as variants of the independent forms in terms of meaning but with a different function.

As further discussed in chapter seven, Ateso verbs are divided into two morphological classes, class 1 and class 2. The latter have a (petrified causative) prefix **ɪ-/i-**, which fuses with the person-marking prefix, as illustrated below. The actual form of these prefixes further depends on mood. Basically, this chapter discusses and uses the indicative mood forms, though in some examples, subjects are preceded by **k-** which is a dependent clause or subordinator.

For class 1 verbs, the first person singular is marked by **a-** while **e-** marks the second and third persons. But when it comes to class 2 verbs, we get a different structure: it is the prefix **e-** that marks the first person singular while **i-** marks the second and third persons as a result of the fusion with the high front vowel of the verb. The first person plural has a unique CV shape; it is marked by **ka-** and **ki-** for class 1 and class 2, respectively. First person plural markers do not occur in inclusive-exclusive forms as is the case with independent pronouns, discussed in section 5.1.2. All personal prefixes bear a high tone but may be assimilated to the tone structure of the verb stem. A full paradigm of subject/person marking is illustrated in Table (5.1). The first row (1) gives the morphophonological representation and the second row (2) the actual phonological representation.[21]

[21] Appendix 4 offers a full set of four verb roots for all persons and person combination, including all subject-object combination.

Table 5.1: Inflectional -person and -number pronouns for subjects in the indicative mood

			Class 1			
	1SG	2SG	3SG	1PL	2PL	3PL
1.	a-	e-/ɛ-	e-/ɛ-	ka-	e-/ɛ-…-PL	e/ɛ…-PL
2.	a-	e-/ɛ-	e-/ɛ-	ka-	e-/ɛ-…-te/ta/si/tu	e-/ɛ-…-te/ta/si/tu
			Class-2			
	1SG	2SG	3SG	1PL	2PL	3PL
1.	a-i/a-ɪ	e-i/ɛ-ɪ	e-i/ɛ-ɪ	ka-i/ɪ	e-i/ɛ-ɪ…-PL	e-i/ɛ-ɪ…-PL
2.	e./ɛ.	i.	i.	ki.	i.…te/ta/si/tu	….-te/ta/si/tu

In Table (5.1) above, the inflectional forms that are prefixed to the verbs agree in number and person with the subject (cross refer to the verbal morphology clause examples with subject and person marking in 7.1 and 7.2). The underlying forms listed in the first row (numbered "1.") of Table 5.1 yield the surface forms listed in the second row (numbered "2.") of Table 5.1. The phonological forms are subject to vowel harmony rules and can occur either as [+ATR] or [-ATR] following the quality of the verb root. The plural form is marked by the morpheme **-te**, **-ta**, **-tu** and **-si** (occurring in different environments) that can be suffixed to both class 1 and class 2 verbs. The allomorphy of the vowel on the plural morpheme is conditioned by the quality of verb root vowels. Plural marking on the verb is a number agreement morpheme for the plural subjects. All forms referring to the 2nd and 3rd person singular/plural have the same structural characteristics in each class. The number suffixes are only marked on the second and third person plural. Appendix 5 gives a full paradigm for plural marking on class 1 and class 2 verbs.

Previous research on the Eastern-Nilotic languages (Toposa and Turkana) reveals similar person agreement morphemes for class 2.[22] However, class 1 Ateso person agreement markers exhibit a slight variation from Toposa and Turkana. Compare the following paradigm of indicative mood subject markers from Toposa and Turkana, adapted from Dimmendaal (1991: 290):

[22] cf. Schroeder (2008: 53) and Dimmendaal (1983a)

Table 5.2: Subject markers in Toposa and Turkana

Class 1	1SG	1PL	2SG/PL	3SG/PL
Toposa	a-	a-/ɛ-, ki-	i-	a-/ɛ-
Turkana	a-	ki-/ki-	e-/ɛ-	e-/ɛ-
Class 2	1SG	1PL	2SG/PL	3SG/PL
Toposa	ɛ.	ɛ./i., ki.	i.	ɛ./i.
Turkana	ɛ. e.	kɪ., ki.	ɪ., i.	ɪ., i.

Based on the results attained from the present data, the marker **e-** for second person singular and plural in class 1 is a grammatical phenomenon that might be attributed to analogical extension where Ateso speakers reduce the class 2 on second person singular prefixes to the corresponding second person plural as a way of reducing the degree of variation.

The similarity of the shapes of class 2 inflectional pronouns in Ateso to that of Toposa and Turkana suggest that at one time there was a similar set in class 1 markers for languages in the Eastern-Nilotic group. Minor changes are observed in Ateso, where for instance, the 1PL in class 1 is **ka-** as opposed to the **e-/ɛ-** that represents the personal inflectional pronouns in Toposa and Turkana. Since the internal reconstruction and historical comparison of this marker is beyond the scope of the present study, further research on other Nilotic languages should help clarify whether this is an innovation or an attested form that applies to some languages in the Eastern-Nilotic group.

The appearance of person/number inflectional markers in constructions is illustrated in the following examples, where (1a-d) are class 1 verbs while (1e-h) are class 2 verbs:

1. a. á-kér-í
      1SG-run-IPFV
      'I am running'

   b. ká-kér-í-té
      1-run-IPFV-PL
      'we are running'

c. é-kér-í
2SG-run-IPFV
'you are running'

d. é-kér-í-té
3-run-IPFV-PL
'they are running'

e. é-líp-í
1SG-pray-IPFV
'I am praying'

f. kí-líp-í-té
1-pray-IPFV-PL
'we are praying'

g. í-líp-í
3SG-pray-IPFV
'you are praying'

h. í-líp-í-té
3-pray-IPFV-PL
'they are praying'

The subject/person marker is prefixed to the verb root: the marker is determined by the morphological class to which the verb belongs. For class 1 verbs, the first person singular is marked by **a-** while **ka-** marks the first person plural, as with (1a) and (1b), respectively. The prefix **e-** marks all the other persons, as in (1c) and (1d), where it marks the second and third person. But when it comes to class 2 verbs, it is the prefix **e-** that marks the first person singular, while **ki-** marks the first person plural, as in (1e) and (1f). The prefix **i-** marks the second and third persons as evidenced in (1g) and (1h), repectively. A summary of person- and -number marking is given in Table (5.1).[23]

[23] Referents in these structures are incorporated in the subject prefix though the subject NP is not overtly present.

Second and third person singular/plural are distinguished by number suffixes (for the plural, **-te**, **-ta**, **-si** and **-tu** etc.). The plural suffixes are illustrated in examples (2) below. They apply to plural verb forms in stative or habitual constructions.

2. a. é-ɲèm-ènèn-è-tè
   3-eat-HAB-IPFV-PL
   'they were eating (habitually)'

   b. é-bòljà-tà
   3-play:PAST-PL
   'they played'

   c. é-ɲàmàkì-sì
   3-escort:PAST-PL
   'they escorted'

   d. é-àɲù-tù
   3-see:PAST-PL
   'they saw'

Whenever the meaning of the inflected verb clause is not understood within the context of an utterance, independent personal pronouns (presented in section 4.1.2) may be used either as subjects or objects. Overt pronouns have pragmatic functions, as will be illustrated later in this chapter. Both the subject and the object pronouns or nouns follow the verb in a clause.

Inflectional personal pronoun prefixes also participate in vowel harmony structuring with the verb stem vowel qualities. All the personal pronouns are [-ATR] underlyingly and when they are attached to verbs consisting of syllables with [+ATR] vowels, they change the [-ATR] to [+ATR] in regressive assimilation.[24]

[24] This also applies to the first person singular prefix **a-** 'I'; however, this latter variant [ä] always occurs in predictable environments and hence does not have phonemic status.

Inflectional personal prefixes, though interrelated in meaning, are phonologically and morphologically dissimilar to independent pronouns as should become clear in the next section. Independent pronouns are presented in sub-section 5.1.2 below.

5.1.2 Independent personal pronouns

They are mainly in pragmatic functions overtly for emphasis, in marked constructions and in replying to questions. They are generally omitted because they can be retrieved from context in most Ateso syntactic structures (see e.g. (3a) for illustration).[25] Even though the referential context is not clear and pronouns should be used, nouns are preferred in place of the independent personal pronouns, as in (3b) where the **ékítàbò** is used to explicitly indicate the item that 'fell'. Mostly independent pronouns are 'dis-preferred' in cases where referents are out of context of a speech situation, as exemplified in (3c).

3. a. á-kèr-ìt
      1SG-run:PAST-PFV
      'I ran'

   b. é-dàcàrà ékítàbò
      3SG-fall:PAST book/NOM
      'the book fell'

   c. í-rùk-ìt ákwɛ̂ɲ
      3SG-sing:PAST-PFV bird/NOM
      'the bird sang'

In example (3a), the speaker is the subject as indicated by an inflectional personal prefix. No independent pronoun is needed to identify the addresser as meaning is also retrieved from context. By using a noun in the subject position, a position that can be occupied by an

[25] Generativists (e.g. Chomsky 1981, 1995) refer to languages that have an underlying realisation of the subject as an empty category of pro as pro-drop languages or as languages with null-subject parameter. However, Schroeder (2009: 201) disputes this claim and demonstrates (using data from Toposa) that the pronoun in pro-drop languages is an incorporated subject. Earlier discussions in the present chapter on inflectional person prefixes augments Schroeder's claim.

independent personal pronoun, (3b) leaves no doubt that it is 'a book' that 'fell' and not anything else as would be the case if independent pronouns occurred in that position. The 'birds' that 'sang' in (3c) are not visible to the speaker and hearer and it would be difficult to know the real participant if no NP occurred. The independent personal pronouns established in Ateso are shown in Table (5.3) in two sets. One set is absolute and the other set encodes nominative forms. They can also occur in other cases and are marked morphologically, as will be illustrated later in chapter eight on case marking.

Table 5.3: Independent personal pronouns

	Absolute			**Nominative**	
	Singular	Plural		Singular	Plural
1st Person	*éòŋ* 'I'	Exclusive: *sjô* 'we'		*èòŋ*	*sjò*
		Inclusive: *ɔ̂ní* 'we'			*ɔ̀nì*
2nd Person	*íjò* 'you'	*ósì*	'you:PL'	*ìjò*	*òsì*
3rd Person	*nésì* '(s)he'	*késì*	'them'	*nèsì*	*kèsì*

Plurality of independent personal pronouns is always accomplished through a partial or total shift to a new word which has no inflectional relationship to the singular. Apart from the third person singular and plural forms which occur with near similar shape (reflecting the ancient Nilo-Saharan alternation for singular or plural; (see Greenberg 1963), first and second person singular pronouns in this category have distinct shape that is different from their corresponding plural forms. Singular and plural forms are either monosyllabic as in **sjô** '1PL-excl.'or disyllabic (e.g. **nésì** '3SG') in structure. In essence, there is no equivalent personal pronoun for the inanimate 'it' in Ateso; instead, a demonstrative is used in its place.

There is an exclusive/inclusive distinction in 1st person plural that is uniquely marked by independent pronouns. This distinction is not marked on the verb by inflections. The form **sjô** '1PL-excl.' is used exclusively to distance the addressee from the group referred to. On the other hand, the inclusive form **ɔ̀nì** '1PL-incl.' takes the hearer as part of the referents. Consider the following:

4. a. á-pòtò sjô
   3SG-beat 1PL:EXCL/ABS
   '(s)he has beaten us (but not the addressee)'

   b. á-pòtò ɔ̀nì
   3SG-beat 1PL:INCL/ABS
   '(s)he has beaten us (including the addressee)'

   c. mámʊ̀ á-bùljà kà-sjô
   NEG INF-play PREP-1PL:EXCL
   'don't play with us' [lit. no playing with us]

In a situation where there is trouble brewing between the participants and the hearer, the third clause (4c), which is an idiom, semantically implies that the participants, excluding the hearer are very tough or bad people whom the addressee should be careful in dealing with. The prepositional phrase in the same clause consists of the preposition **ka-** prefixed to the 1PL:EXCL. A negative particle occurs pre-verbally, and is/can be followed by a fronted subject that is only overtly expressed in the verb as shown in example (4c) but could be expressed for emphatic purposes, as in:

5. mámʊ̀ *ìjò* á-bùljà kà-*sjô,* *k*á-bùlià kà késì
   NEG 2SG/NOM INF-play PREP-1PL FOC-play PREP 3PL/ABS
   'Don't play with *us*, play with *them*!'

The negation marker preceding the subject is a verb (lit. meaning 'lack or not exist') hence the subject has nominative tone pattern. Though inflectional prefixes for (4a, 4b) are similar, distinctions of exclusive and inclusive meaning can only be expressed by overt pronouns.

5.1.2.1 Functions of independent personal pronouns

Independent personal pronouns are used as syntactic subjects or objects. They are used for referential maintenance: with shifting reference to the speaker, to addressee, or to a third attendant in discourse. There are structural changes or distinctions for pronominal forms depending on whether they occur as subjects or as objects. Subjects following the verb have nominative marking while the object always occurs post-verbally in absolute case. On the other

hand, pronominal subjects in non-verbal (predicative) constructions occur in the absolute case as illustrated in example (6). Also, pronominal objects take absolute case regardless of their position relative to the verb, which shows that the absolute case forms constitute the unmarked forms in the language (to be illustrated at length in the chapter on case marking).

6. éòŋ è-múrwò-n(i)
   1SG:ABS M-doctor-SG/ABS
   'I am a doctor (lit. traditional healer)'

Number is marked in both the subject and the object; the 1SG **éòŋ** occurs with a noun **è-múrwò-n(i)** that is in singular form. On the other hand, gender is only marked on the noun and not on pronouns. In conversations and narratives, independent pronouns are used in place of nominal subjects and objects that can be retrieved from context or those that are known by participants.

5.1.2.1.1 Subjects

Subject positions in the Ateso sentence are typically occupied by a noun or pronoun. Independent personal pronouns are optional units but when they occur as subjects following the verb in a construction, they take nominative case. In some instances, where the subjects are topicalised, independent subject pronouns occur pre-verbally, in which case they are absolute. All constructions consisting of the verb and independent pronouns must occur with inflectional personal prefixes (as discussed in 5.1.1). Subject prefixes of the verb in the resulting structure refer to the nominative subject. Occurrence of independent personal pronouns as subjects of the verb is illustrated as follows:

7. a. á-ɟótór-í èòŋ
      1SG-sleep-IPFV 1SG/NOM
      'I am sleeping'

   b. á-kèrì-tè *ɔ̀nì*
      1-run:PAST-PL 1PL:INCL/NOM
      'we ran'

c. í-gìràk-ì nèsì
3SG-write:IPFV 3SG/NOM
‘(s)he was writing’

d. kí-bìl-ì-tè *sjò*
1-break:PAST-IPFV-PL 1PL:EXCL/NOM
‘we(excl.) were breaking’

The inflectional marking on the verb agrees in number and person with the pronominal forms in the above structures. NP referents for third person may be known or unknown to the speaker. Pronouns in predicate nominal structures (such as the ones in example (6) and (8)) also function as subjects. In these constructions, they precede predicate nominals without a copula.

8. éòŋ èpènòk
1SG/ABS visitor/ABS
‘I am a visitor’

Both the predicate pronoun and the subject noun have absolute case. Consequently, the two components of the clause are unmarked, since according to Koenig (2006), categories in such constructions often correlate to functional unmarkedness.

5.1.2.1.2 Objects

Independent pronouns are also used as objects in a clause. They follow the subject (either a noun or a pronoun) in a clause when they (objects) occur post-verbally (VAO/VS). Object pronouns, all occurring post-verbally and following the subject, are illustrated in example (9).

9. a. ɛ́-míná-sí késì
3-love-PL 3SG/ABS
‘they love them’

b. é-ɟùkàrì í-dwè nésì
3-send:PAST N/PL-child/NOM him/ABS
‘the children sent him/her’

c. á-kwên-ìt èòŋ ósì
1SG-laugh-PFV 1SG/NOM 2PL:INCL/ABS
'I made you laugh'

Pronouns serving as objects can occur after the verb, as with **késì** in (9a) or after the subject, as with **nésì** and **ósì** in (9b) and (9c), respectively. Taking (9c) for further illustration, the first person singular, **èòŋ**, functions as the subject of the clause and has nominative case while the second person plural **ósì** is the object (marked absolute). Object pronouns may also occur pre-verbally, for example when the object is topicalised.

10. ɔ̂ní bòn á-kwèn-ìt èòŋ
2SG:ABS DIS 1SG-laugh-PFV 1SG/NOM
'as for you, I made you laugh'

Object pronouns are unmarked in the two positions, i.e. after the verb (as illustrated above) and before the verb, as with ɔ̂ní in (10). Fronting of the object is structurally a marked position but it takes the unmarked absolute case. The inflectional agreement markers in both cases relate to the subject (whether overtly marked or not) and not the object pronouns.

In summary, independent personal pronouns (also referred to as 'self-standing' pronouns by Tucker & Bryan 1966: 469) are mostly used for clarification and emphasis. They are generally omitted and their meaning recovered from inflectional personal markers attached to the verb. When overtly present, they follow the verb in a finite construction. On the other hand, object pronouns are necessary because the object does not have an inflectional counterpart in the verb.

5.2 Pronominal alignment

Ateso has a special way of treating the two core elements, i.e. the object and the subject in a clause. The relationship between the two core elements is known as case marking. Pronominal alignment concerns whether a pronominal intransitive subject is treated the same as the pronominal transitive subject, or the same as the transitive object, whether all three are distinct, or whether all three are the same (Comrie 1978, Dixon 1979).

Since Ateso pronouns are morphologically complex, constructions can exist with both pronominal subject and object. There are two possibilities with regard to Ateso's pronominal alignment. The language exhibits marked-nominative alignment on (independent) pronouns and hierarchical order. The alignment systems are organised around the syntactic units S, A and O, labels adopted from Dixon (1978, 1994). The S marks the argument of an intransitive clause; A denotes the most agentive argument of a transitive construction while O is the other core (typically most patientive) argument in a transitive clause.

5.2.1 Marked-nominative alignment

Ateso is a marked-nominative language with VS/VO word order. The pronominal agreement is such that the inflectional pronoun prefixed to the verb agrees with the S of the intransitive and the A of the transitive clause.[26] This can be illustrated in example (11); (11a) is an intransitive clause while (11b) and (11c) are transitive clauses.

11. a. é-móŋ-í è-kìljòkìt
3SG-cry-IPFV M/SG-man/NOM
'the man is crying'

b. é-sùkùŋà è-kìljòkìt à-bérʊ̀
3SG-push:PAST M/SG-man/NOM F/SG-woman/ABS
'the man pushed the woman'

c. é-sùkùŋà à-bèrʊ̀ è-kíljòkít
3SG-push:PAST F/SG-woman/NOM M/SG-man/ABS
'the woman pushed the man'

The 3SG inflectional person pronoun on the verb refers to the S of the intransitive clause in (11a). The 3SG refers to the A of the transitive clause in (11b). The 'man' in the S of the intransitive clause has the tone marking LLLL which is the same as the tone of 'man' in the A position of the transitive clause. In (11c) 'man' occurs in the object position, and has the tone marking LHLH. The different tone marking on 'man' in (11) gives an impression of a

[26] Schroeder (2015: 65) observes that this kind of marking is typical of nominative-accusative systems but is also found in the marked nominative systems of Toposa.

nominative-accusative system. But ‘man’ in isolation will be **è-kíljòkít** with the LHLH tone marking; the same as that of ‘man’ in the object positon.

Since ‘man’ in the object position has the same tone as the tone of ‘man’ in isolation, it can be concluded that the object position is the unmarked position. On the other hand, the S of the intransitive clause and the A of the transitive clause are marked, an indication that Ateso has a marked nominative system. Further evidence that Ateso is a marked nominative and not an ergative-absolutive or a nominative-accusative language is provided in chapter nine. But as illustrated next, complications occur whenever the object is occupied by a first person singular or plural pronoun.

5.2.2 The hierarchical system of person marking

Ateso has a hierarchical system of person marking: where, the treatment of the A and P is dependent on their relative ranking on the referential hierarchies. Whenever a third person singular or plural fills the subject position (i.e. occupies the A-role) and the object position is occupied by a first or second person singular in Ateso, morphological complications occur. In such constructions, there is no pronominal subject prefix for the third person. Instead, only a prefix referring to the object occurs. Consider the following examples where the **ki-** and the **ka-** are object prefix rather as they do not refer to the 3SG in (12a-c) or the ‘boy’ in (12d-f):

12. a. kí-pòs-ì éòŋ
    3>1-beat-IPFV 1SG/ABS
    ‘(s)he beat me’

    b. kí-pòs-ì íjò
    3>1-beat-IPFV 2SG/ABS
    ‘(s)he beat you’

    c. kí-pòs-ì ósì
    3>1-beat-IPFV 2PL/ABS
    ‘(s)he beat you’

d. ká-ìn-àkìn-ìt è-sàpàt éòŋ
3>1-give-DAT-PFV M-boy/NOM 1SG/ABS
'The boy gave it to me'

e. ká-ìn-àkìn-ìt è-sàpàt íjò
3>1-give-DAT-PFV M-boy/NOM 2SG/ABS
'The boy gave it to you'

f. ká-ìn-àkìn-ìt è-sàpàt ósì
3>1-give-DAT-PFV M-boy/NOM 3SG/ABS
'The boy gave it to me'

In (12a) (12b) and (12c) the prefix **ki-** marks the 1SG, 2SG and 2PL objects, respectively, and not the 3SG subject. Similarly, the prefix **ka-** in (12d), (12e) and (12f) are object prefixes marking 1SG, 2SG and 2PL, respectively, and not 'boy' which is the subject of the three clauses.

The same system (which may be referred to as a prominence hierarchy) is found in Eastern Nilotic languages like Toposa, Turkana or the more distantly related Maa language. In this system, the participant higher on the hierarchy is marked on the verb, whether S or O. In both examples in (12) above the 1SG and the third person are involved. The 1SG fills the person index slot based on the relative position of the two arguments on both the person hierarchy 1/2 > 3 and the grammatical roles hierarchy A > P.

5.3 Possessive pronouns

Possessive pronouns are divided into three groups based on person and number (1st, 2nd and 3rd person singular and plural). The singular group is made up of pronouns which substitute for single nouns while the plural group substitutes for plural nouns. Each group is made up of a set of pronouns which act as a substitute for masculine or feminine gender classes. Generally, possessive pronouns illustrated in Table (5.4) are used as independent markers without a corresponding head noun preceding them, that is, they are not attached to any other segment. A full lexical form is thus made up of a root and a prefix which relates to the number and gender category that the pronoun stands for. The singular and plural possessives appearing with their gender forms are noted in Table (5.4). These forms are used when the corresponding head noun

is absent, i.e. when the pronominal forms are used elliptically (e.g. ‘mine’, when referring to ‘my book’).

Table 5.4: Ateso possessive pronouns

Person		**Number**			
		Singular		**Plural**	
1st	M	l-áŋí	‘mine’	lú-ók	‘ours’
	F	n-áŋí		nú-ók	
	D	á-áŋí		óók	
2nd	M	ló-kón	‘yours’	lú-kón(i)	‘yours’
	F	nó-kón		nú-kón(i)	
	D	ní-kón		nú-kús	
3rd	M	ló-kén	‘his or her’	lú-kés	‘theirs’
	F	ná-kén		nú-kés	
	D	ní-kén		nú-kés	

Simple forms for the 1st, 2nd and 3rd person singular possessives enclosed in morphology brackets are |-àŋí|, |-kón| and |-kén|, respectively. The plural possessive stems are: |-ók| for 1st possessive plural, |-kón| for 2nd person plural and |-kés| for the 3rd person plural. The root for the 2nd person singular and 2nd person plural is identical. An augment which marks gender is intertwined with the stem when the pronouns are used in isolation. All possessives vary in form depending on gender and number of the possessed item. The prefix **lo-** is used with the masculine singular, except for the first person where the vowel on the prefix for both genders is deleted before the stem as a result of general vowel deletion rules. Prefixes **lu-** and **nu-** are used for masculine and feminine plurals, respectively, for all persons. The possessive pronouns have voiceless vowels (o) for first person plural and (i) for the 2nd and 3rd person singular and plural which shows up when another modifier follows the possessive forms.

In an N + pronoun phrase, the noun shows predominance in determining the agreement pattern in the Ateso NP as indicated in (13). The possessed noun phrase order follows the pattern (N) possessed + (pronoun) possessor.

13. a. à-múkànà ànɲí
F-shoes 1SG/POSS
'my shoes'

b. è-kítàbòí kén
D-book 3SG/POSS
'his/her books'

c. è-sápàtà kòn
M-boy 2SG/POSS
'your boy'

d. è-tògó kés
D-house 3PL/POSS
'their house'

All possessives appear only in their root form when they occur with gender specified possessed noun phrases. In this case, gender is marked on the lexical nouns. The possessive form **ànɲí** 'mine' and **ken** 'his/her', just like the other two, do not take any morphological markers and can occur with a possessed N without any changes. Diminutive gender is marked on nominal and thus pronominals in the two clauses are neutral with regard to gender. Nouns such as those represented in (13a) and (13b) appear in singular form even though they have a connection to plural meaning.[27]

The examples clearly show that possessive pronouns can be used with both animate and inanimate possees (e.g. **è-sápàtà** in (13c) is animate while **è-tògó** in (13d) is inanimate, both followed by possessive pronouns). The resulting meaning is that of 'belong' - possession that is similar to that indicated by genitive structures.

Further, just like most modifiers, and as already mentioned, possessive pronouns occur immediately after the noun that they modify. Consider the following examples where the noun for 'child' is modified by different possessive pronouns:

[27] Comparatively, languages in the Southern Lwoo group (with the exception of Labwor) have a reduced number marking functions; as a consequence, not all nouns may be inflected for number anymore (Storch 2005: 381).

14. a. íkókù áŋí
child 1SG/POSS
'my child'

b. íkókù óók
child 1PL/POSS
'our child (Inc.)'

c. íkókù lúók
child 1PL/POSS
'our child (Exc.)'

d. íkókù níkón
child 2SG/POSS
'your child'

e. íkókù núkés
child 3PL/POSS
'your child'

As evidenced in (14a-e), possessive pronoun modifiers occur in a restricted order whose units cannot be freely interchanged. Inversion of N and pronoun elements in these phrases leads to ungrammaticality. For instance, the position occupied by **íkókù** 'child' in (14a) cannot be swapped with **áŋí** '1SG/POSS' since the first position is reserved for possessed forms. The same applies to the rest of the examples where the 1PL (Incl./Excl.), the 2SG and the 3PL, in (14b), (14c), (14d) and (14e) follow the N that they modify.

5.4 Relative pronouns

Relative pronouns are co-referential with the head of the NP. They have distinctions of gender and number. This can be illustrated as follows:

15.

Gender	**Relative markers**	
	SG	PL
M	(ŋó)-ló	(ŋú)-lú
F	nà	(ŋú)-nú
D	(ŋí)-ní	(ŋú)-lú

Gender prefixes are in parentheses since they are not part of the relativizers (as with, e.g., (ŋú)-lú in (15) above). Apart from the feminine singular, nà, all the other forms in (15) can occur with a gender prefix making them disyllabic with CVCV shape. In their occurrence with nouns, gender and number agreement is marked both on the head noun and the relative marker. The relative clauses in (16) are used to exemplify the relative clause markers in the language.

16. a. è-kíljôk-ìt ló á-bùùt
M-man-SG M/SG PRF-came
'the man who came'

b. ì-kíljôk lú á-bùùt
M/PL-man M/PL PRF-came
'the men who came'

c. à-pésúrù nà á-mòŋ-ì
F/SG-girl F/SG 1SG-cry-IPFV
'the girl who was crying'

d. à-pésé nú á-mòŋ-è-tè
F/PL-girl F/PL 3-cry-IPFV-PL
'the girls who were crying'

e. ì-tògò ló á -pùsàrà
D-house D/SG 1SG-collapse
'the house which collapsed'

f. ì-tògò-í lú é-pùsàrà
M-house-PL D/PL 3SG-collapse
'the houses which collapsed'

The term **è-kíljôk-ìt** in (16a) is marked with masculine gender and singular morphemes which relates to its relative marker **ló** that has a similar gender and number marking. The same noun in its plural form in (16b) occurs with the plural masculine relative **lú**. This follows through the rest of the examples where **à-pésúr(ù)** and **ì-tògò**, respectively, occur with the feminine and diminutive forms of the relative marker.

Most grammar sources of many languages of the world do not count 'who' as a relative pronoun but Ateso's singular relative pronouns loosely translate to the meaning equivalent 'who'.

5.5 Interrogative pronouns

Interrogative pronouns in the language have distinctions between human and non-human in addition to the singular and plural divisions for some. The pronouns are used as question words with the meaning of 'who', 'where', 'what', 'why' and 'how'. Ateso's basic interrogatives words used for questions are presented in (17):

17.

	SG	**PL**	
a.	ŋàíbó	àlù	'who'
b.	àíbó	wàlìbó	'where'
c.	ìŋénâ	-	'what'
d.	kànúkíŋó/ìŋóbó	-	'why'
e.	kòní/kòníbó	-	'how'

The terms **ŋàíbó** 'who' refers only to people, **ìŋóbó** 'why' and **kòníbó** 'how' refer only to inanimate concepts, and the others can refer to either inanimate objects or people. The entire interrogative forms end with the discourse marker **-bo** (which is lexicalised in combination with these words) in the singular form except for **ìŋénâ** 'what' and the variants for 'why' and 'how' which do not have number distinctions. To distinguish masculine and feminine forms, gender prefixes are added to the interrogative stem **ŋàíbó** 'who' (see example (18) below). The resulting

interrogatives may have singular or plural meaning as defined by the gender markers which also occur in SG/PL number forms.

18. a. M. lú(kà)-ŋàíbó ‘who (plural masculine)’
    b. F. nú(kà)-ŋàíbó ‘who (plural feminine)’

The list in (17) and (18) includes all interrogative forms attested in the language. Generally, the interrogative words are used in formation of content questions which requires the identity of a person, place or object as an answer. The identity can be carried by different types of nouns and by pronouns (as will be illustrated later in section 10.2.2.1).

5.6 Conclusion

In this presentation emphasis is laid on the form and function of pronouns found in Ateso. The different sections on pronouns examine personal, possessive, relative and interrogative pronouns. Ateso has both independent personal pronouns and bound pronouns. Independent pronouns are free standing forms which occur as subjects or objects. They have semantic distinctions of person and number. Bound inflectional personal pronouns occur more frequently and are prefixed to the verb stem for person and number marking. Mostly, they carry the syntactic values of the subjects, though sometimes they relate to objects.

Ateso’s pronoun subjects are cross-referenced by way of inflectional person/number pronouns that are affixed to the verb. Tonal patterns on pronominal forms are important for subject and object distinctions in both the nominative alignment and the hierarchical system of person marking. Case on the subjects and objects is also marked by these tonal patterns, as further elaborated in chapter nine.

Chapter Six: Minor word categories

There are a few examples of minor lexical categories in the language. These categories include: adverbs, prepositions, attitude markers and restrictives. Minor categories are employed in a variety of oblique uses such as indication of time, location and non-core arguments of the verb. Adverbs and prepositions with nouns occur in extended clauses as adjunct forms, that is, they are located at peripheral positions which are unmarked. Minor categories are important syntactic segments; hence, the discussion of verb morphology, clause and sentence structures in the language is set off by expounding on these elements.

6.1 Adverbs

Ateso adverbs modify verbs in terms of time, quantity, manner or how the action is done. These adverbs can be divided into temporal adverbs, manner adverbs, adverbs of degree and adverbs of probability. They are found at the beginning of the clause or following the core arguments in post-verbal position. This section explains the shape and function of adverbials.

6.1.1 Temporal adverbs

These are structured segments of temporal shifters for denoting time (cf. Ernst 2002). They have relative reference to time periods prior to or following a shifting deictic centre. The deictic centre here is the time of speaking. Adverbial units in this category exhibit unique characteristics among nominal forms. They are structurally nouns, as some have typical nominal prefixes, but better be classified as adverbs or adverb-like time nouns owing to their distributional characteristics. The present description records a complete expression of the temporal shifters system that was attested in regular use during fieldwork. The shifters are used to express time, days and years. Temporal adverbs that relate to parts of the day are presented in example (1).

1. a. tùpùrùcù ‘morning’
   b. àkɔ̀lɔ̀ŋ ‘day time’
   c. kwârè ‘night’
   d. pàràn ‘day’
   e. ébóŋ ‘evening’
   f. sèk ‘long ago’

The time adverbial **sèk** indicates undefined time in the past. It can be used to mean 'many hours ago', 'many days ago' or even 'many years ago' dependent on the context of speech. If used in writing, they only refer to the two latter forms.

Temporal shifters also include days and years. The time is in relation to the referent 'now' as the deictic centre - extending from the past to the present, and future. Day temporary shifters can be illustrated as follows:

2. a. kòlòŋé 'one day before yesterday'
   b. djàní 'yesterday'
   c. lòlò 'today'
   e. pòkòná/sààló 'now'
   f. mòì 'tomorrow'
   g. mòì àcé 'the day after tomorrow'

Explicit reference marking for boundaries based on the present month as a deictic point exists in the language. Different demonstratives apply to the same entity signifying the time frame between the present month and other months. The words related to months are shown in example (3).

3. a. élàpà ɟé
      month last
      'last month'

   b. élàpà nà
      month this
      'this (present) month'

   c. élàpà ŋóló
      month that
      'that (next) month'

A demonstrative **kwì** is used when talking about two or more months before the present month. Its use does not point to the exact number of months before the present month and thus interpretation is dependent on context. Further, though not commonly used by Ateso speakers,

there exist lunar terms for months. The words are listed as: <*Orara*> 'January', <*Omuk*> 'February', <*Okwang'*> 'March', <*Odung'e*> 'April', <*Opedel*> 'May', <*Omaruk*> 'June', <*Omodokoking'ol*> 'July', <*Oloɟa/Otikoik*> 'August', <*Otibar*> 'September', <*Osokosokoma*> 'October', <*Osuban*> 'November' and <*Opo*> 'December'. Despite the existence of the words for months, most speakers prefer using the expressions in (3) to count the months of the year with the present month acting as the deictic centre.

Year temporal shifters relate to the past, present and future. These terms normally express the general idea of an extended period or season. Demonstratives used are similar to those occurring with temporal shifters that relate to months. The expression of season is set off by the word for 'year' and it is followed by an antecedent for the different shifters of time. Example (4) illustrates the year temporal shifters.

4. a. èkàrù ɟé
   year last
   'last year'

   b. èkàrù nà
   year this
   'this (present) year'

   c. èkàrù ŋóló
   year that
   'that (next) year'

Temporal shifters occur in relatively free positions within the sentence (initially, finally, and presumably also between the verb and the subject when they carry focus). The concepts are used to express different days, months or season, and events that relate to change of time. However, the months can be counted using Ateso expressions (e.g. first month, second month etc.). Also, there exist words that talk about seasons, that is, the approximate equivalent of the calendar words.

5. a. àkámjô 'dry season'
   b. àpàk nàk èkídòn 'wet season'

c. àpàk nàk àkídwɛ̂ŋ ‘harvest season’
d. àpàk nàk étèŋè ‘hunger period’

These words constitute a circle, and thus a calendar year. Only the word for ‘dry season’ in (5a) exists in isolation; other seasons are expressed by at least three words.

6.1.2 Adverbs of manner, degree and probability

There are a number of adverbs in Ateso that express manner of motion, degree and probability of motion among other functions. They occur after the verb which they modify in terms of the stated functions. Most of these adverbs occur in basic non-derived forms though some may occur as a derivation or as a phrase.

6.1.2.1 Adverbs of manner

There are four manner adverbs attested in the language. They are used to indicate the way or pace at which something happens.

6. a. àtípété ‘quickly’
   b. àdjô ‘slowly’
   c. cút ‘completely’
   d. bòbò ‘again’

Syntactically, manner adverbs occur at post-verbal positions. They follow the subjects in VS structures and occur after the object in a VSO string.

7. a. á-lòtò Omoding’ ó-sòmèrò àtípété
      3SG-go:PAST NP LOC-school/LOC quickly/ADV
      ‘Omoding’ went to school quickly’

   b. á-àràtà émír àdjô
      1SG-kill:PAST rat/ABS ADV/slowly
      ‘I killed the rat slowly’

Adverbials of manner are used to modify verbs regardless of the intervening S or SO constituents in the structure. The adverb **àdjô**, for example, modifies the verb **à-àràtà** rather the noun émír

that it follows. The scope of this manner adverb extends to the whole clause even though it is located at peripheral positions.

Further, adverbials of manner may be used to indicate an action done repeatedly or frequently. There are two adverbials which serve the two functions. The two forms are illustrated below:

8. a. ŋínì pákî ‘repeatedly’
   b. dúcúdúcú ‘frequently’

The adverbial **dúcúdúcú** is used interchangeably with **ŋínì pákî.** Preference is on the speaker but the meaning remains approximately the same as both represent frequency of occurrence. Sometimes, the choice between the two temporal adverbials depends on the verb type and what best defines this form. Deverbative verbs such as **àmèɟà** in (9d) preferably use **dúcúdúcú.** The two temporal adverbs can occur with perfectives, habituals or with an AUX and a main verb. Its use results into meaning of an action that is done repeatedly or frequently. Furthermore, the two forms can be used for both non-past and past tense as illustrated in (9) below.

9. a. í-gìr-ìt ŋínì pákî
      3-write:PAST-PFV repeatedly
      ‘they wrote repeatedly’

   b. é-móŋ-énén-é ŋínì pákî
      3SG-cry-HAB-IPFV repeatedly
      ‘(s)he cries repeatedly (habitually)’

   c. á-gwèl-ènèn-è dúcúdúcú
      1SG-buy:PAST-HAB-IPFV frequently
      ‘I bought frequently’

   d. á-bútó á-méɟá dúcúdúcú
      1SG-AUX 1SG-hunt frequently
      ‘I will hunt frequently’

A perfective and habitual form is used in (9a) and (9b-c), respectively. Tone on the deverbative noun in (9d) is similar to the tense tone expressed on the auxiliary form. The two temporal adverbs occur at post verbal position.

6.1.2.2 Adverbs of degree

Ateso expresses the intensity of an action using two adverbs of degree. The adverb of degree **díŋ** 'very' is the most common. This adverb is often reduplicated by most speakers for increased intensity of action resulting to the structure shown in (10b). The reduplicated structures do not appear as separate forms but rather have an epenthetic vowel introduced between the base and the reduplicated part.

10. a. díŋ 'very'
    b. díŋ-í-díŋ 'extremely'

Just like the adverbs of manner discussed above, the adverbs **díŋ** 'very' and **díŋ-í-díŋ** 'extremely'occur post-verbally. This is illustrated in (11) below.

11. a. í-nàpàpàrà díŋ
       3SG-polite ADV
       '(s)he is very polite'

    b. í-nàpàpàrà díŋ-í-díŋ
       3SG-polite ADV-EV-ADV
       '(s)he is extremely polite'

The reduplication of the adverb **díŋ** in (11b) denotes a level of politeness that is more intensive than its original form in (11a).

6.1.2.3 Adverbs of probability

Adverbs of probability are used to express the likelihood of something (either an event or situation) happening. This type of adverb results from a combination of two discourse markers **kéré** and **bó**.

12. kérébó 'maybe, perhaps'

Syntactically, these adverbs occur at adjunct positions. The adverbial form in (12) applies to the verb regardless of the intervening core elements between it and the verb as in (13) below.

13. ká-ásì sjò òré kérébó
1PL-go:PAST 1PL home perhaps
'we will perhaps go home'

To sum up the discussion in this section, the order of adverbials in constructions is strictly after the verb. Though adverbials may occur freely in clauses at post-verbal positions, they are constrained from intervening between a verb and a subject.

6.2 Prepositions

There is a small set of prepositions in the language that is used to encode various spatial relations and locative concepts. According to Watters (2000: 196), most African languages (Ateso included) have fewer prepositions. Semantic relations as expressed by prepositions (e.g. in European languages) are often expressed by other grammatical means. Prepositions exist either in their basic forms or are derived from nouns. Basically, they are optional elements that are rarely in use as compared to other dominant categories such as the verbs and nouns.

14. a. pwàp 'down' – derived from or related to a word for country
b. kùɲù 'on' – derived from word for 'sky/heaven'
c. kà 'with'
d. lòkà 'for'
e. tòòmà 'in'
f. kíˈ ŋàrèn 'in front'
g. kàʊ̀ 'behind' – derived from body part term **ákàʊ̀** 'back'

The preposition **ka** is polysemous as its use goes beyond location or comitative realm. It adopts a homonymist/polysemous position where it takes separate meanings for each of the functions assigned to it by structural context. The preposition can be used to express different meanings, for example, **ka** may be used as the conjunction 'and' to express an idea of addition (as will be illustrated later in the syntax chapter). It may also be used as a genitive marker (see, e.g. the chapter on case marking).

Overall, the most dominant tone is the low tone that applies to almost all the prepositions. Basic prepositions exist as single units, either in monosyllabic or bi-syllabic forms. Directional

prepositions **kùɟù** ‘up’, **tòòmà** ‘in’, **pwàp** ‘down’ and **kàɔ̀** ‘behind’ are derived from nominals and they acquire the prepositional function.

All prepositions precede nouns in a PP phrase. A PP with a nominal component requires that locative marker be prefixed to the noun as with **ó-tógò** ‘in the house’. The locative markers are used to express different thematic roles which range from location to indicating ‘belong’-possession and they are gender sensitive. The **k-** occurs with masculine forms while the **o-** is prefixed to feminine forms.

15. a. kwàp k=èròtò
PREP PREP=road/LOC
‘down to the road’

b. kùɟù ò-mésà
PREP LOC-table/LOC
‘on top of the table’

c. kà Amoit
PREP NP
‘with Amoit’

d. tòòmà ò-tógò
PREP LOC-house/LOC
‘in the house’

Prepositions must precede nominal complements since the reverse order of the NP constituents is grammatically impossible. The noun forms following the prepositions can occur with another prepositional element prefixed to it as with the **k=** in (15a) attached to **ròtò** or with a locative case marker **o-** as with (15b) where **o-** is prefixed to **mésà**.

Syntactically, adverbs and prepositional phrases are typically placed after the object. The resulting word order with the subject and object will be;

VS(O)(X)

Where X, is the oblique (minor) constituent which can also occur following the subject whenever there is no object referent in a clause.

6.3 Attitude markers

Ateso has grammatical particles that are used as discourse markers. These particles have undefined categorical status as they do not fit into any established linguistic categories such as nouns, verbs, adverbs and prepositions. The particles are therefore referred to as 'attitude markers' following the terminology used for the same markers in Turkana by Dimmendaal (1983c; 1996).[28] The particles are fully integrated into the syntactic function, majorly acting as units of emphasis on propositional content and as referential tools. Their meaning is clear when they are combined with the elements that they modify.

There are several attitude markers in the language. The discussion is initiated by illustration of the attitude marker **de**. The attitude forms always occur with an independent personal pronoun or a noun, in which case the free standing morpheme **de** follows the noun or pronouns that it places emphasis on. This is illustrated in Table (6.1).

Table 6.1: Attitude markers

	Independent pronoun/noun	**Attitude marker**	
1SG	éòŋ	dè	'me too'
2SG	íjò	dè	'you too'
NP	à-pésé	dè	'the girl too'
1PL	sjò	dè	'we too'
2PL	ósì	dè	'you too'
3PL	késì	dè	'them too'

From the table, no morphological changes are observed on the independent pronouns or nouns that the attitude marker applies to. The attitude marker occurs independently following the independent pronouns or nouns. The marker is used to show that a person does something

[28] These particles are listed in Turkana as: **bo**, **kɛrɛ**, **mono**, **ca** and **robo** by Dimmendaal (1996)

together with other people. The doer or agent is associated with other agents participating in an activity.

Syntactically, like all other peripheral forms, attitude markers are positioned after the verb and after the subjects that they modify.

16. a. á-ɲàm èòŋ dè
1SG-eat 1SG/NOM ATT
'me too, I eat'

b. kó-móɲ íjò dè
SUB-cry 2SG/ABS ATT
'you too, you cry'

No tonal changes apply to the attitude marker when used in clauses. The marker occurs with a low tone even when used with the verb **kó-móɲ** whose root has a high tone to mark the non-past tense.

Apart from **dè**, the marker **bèrè** is also found in the language. It is positioned in the same way as **dè** where it follows the subject that it modifies. The reference subject is that which is unmarked and can only be retrieved from context as illustrated in (17).

17. a. kí-dérékí bèrè
IMP-wait ATT
'wait first (lit. to begin with/ a second)'

b. kí-ɲékí bèrè
IMP-leave ATT
'leave (first)'

c. kó-búní bèrè
IMP-come ATT
'come (first)'

The particles **bèrè** and **dè** are semantically related as they are all used for information packaging, that is, for emphasis and referential roles in a clause or sentence. The marker **bèrè** plays an

additional role of modifying the verb. According to Dimmendaal (1996), such markers in fact appear to be common in a wide variety of language families across the world.

Attitude markers can create focus or place emphasis on sentential elements or subjects that they modify (Dimmendaal 1996). Though the categorical status of these words is undefined, attitude markers are fully integrated into the syntactic structure as shown in (17) and (18) above. The restrictive marker **bòn** (used for assertive focus) occurs in the same way as the attitude markers **bèrè** and **dè**. Restrictive markers are discussed in the next section.

6.4 Restrictives

Restrictiveness confines the agent's activity to one and only one action whenever it occurs with the verb. The free morpheme **bòn** following a verb leads to a verb having restrictive meaning. Table (6.2) illustrates addition of restrictive forms to the basic verb.

Table 6.2: Restrictives

Basic verb		**Derived verb**	
ákèrì	'run'	ákèrì bòn	'run only'
ákìgìr	'to write'	ákìgìr bòn	'to write only'
áàŋùn	'to see'	áàŋùn bòn	'to see only'
ákìlèɟè	'to dance'	ákìlèɟè bòn	'to dance only'
ábùljâ	'play'	ábùljà bòn	'play only'

No phonological or morphological changes take place on the basic verb part that accompanies the restrictive segments. The order of the morpheme and the basic verb form in the structure is not interchangeable. If interchanged, the resulting meaning would be ungrammatical.

6.5 Conclusion

Ateso has an array of temporal shifters, adverbs, prepositions and discourse particles. Temporal shifters occur as single units or may be a combination of nouns plus demonstratives. Syntactically, adverbs occur post-verbally at peripheral positions. In a PP, the preposition precedes the noun component. Prepositions are mostly monosyllabic or disyllabic in form and

are used to express spatial relations. Further, attitude as well as restrictive markers which are not well defined as lexical class members occurs after the nouns that they modify.

Chapter Seven: Overview of verb structure and derivational morphology of the verb

Verbs in Ateso, just like they occur cross-linguistically, are used to denote activities, processes and states. The language has a highly productive system of inflectional and derivational morphemes that can be attached to the verb by way of prefixation, suffixation and reduplication of the root. Various morphological processes together with tone indicate agreement, tense, aspect and derivational extensions such as causatives.[29] The identifiable markers within the verb structure leads to a superficial impression of Ateso as an agglutinating language, an observation that is proved otherwise in this study. Since the Ateso verb consists of various morphological components, the focus in the analysis of this chapter will be on the verb root together with its derivational extensions.

Verbal derivations involve extensional slots on the verb stem. The prominent verbal derivative extensions are causatives, ventives, datives, itives, instrumentals, iterative and voice. Extensions not only lead to a change of the basic structure of the verb but also cause a shift in semantic or syntactic constituents. The causatives, datives, instrumentals and passives are valency changing processes. These processes are analysed under each of the listed derivative extension.

Though the iterative forms do not cause valence change, they are analysed as verbal derivations based on three main reasons. Firstly, as a general principle, derivation is not just about valency change. It is about modifying the inherent meaning of a lexeme (or lexical root), and this may or may not affect the valency or argument structure of a verb. Secondly, looking at the position of iterative marking relative to the root and relative to other derivational markers like the dative (as will be seen in the discussion below), the derivational markers follow iterative marking.[30] Lastly, the analysis of the iterative in the present chapter, as a derivational phenomenon, is also due to

[29] As illustrated by Comrie (1985a: 316), valence increasing derivational processes are applicatives and causatives. In this processes, as will be demonstrated later in the present chapter, obligatory arguments are added to the verb when the verbs are extended by derivational morphemes. It should be noted that the analysis of verb derivation and inflection in different chapters does not imply appearance or occurrence of the two morphological processes as separate entities.

[30] If the iterative is treated as an inflection, you end up with a system of verb slots where the root is followed by the inflectional markers like the iterative, which will then be followed by derivational markers (e.g. ventive, itive, dative and instrumental), then inflectional markers (tense, aspect) again.

the fact that in nominalisations the marker of this extension is 'inherited', just like the dative, ventive or itive do.

Further, the present chapter will include discussions on pluractionality as it is a morphological process that extends the verb and thus affect inherent meaning of the verb by adding information on manner (semantic role).

Before proceeding with the discussion of verb derivational forms, some general description on the structure of the basic verb shape is given. The introductory sections thus focus on the verb root and the key phenomena that affect it, such as verb classes, subject and person marking, and the form of the infinitive. Though the pronominal marking on the verb are inflections; their discussion in this chapter together with that of the aforementioned is the foundation that will be used to develop the discussion of both derivational and later inflectional forms.

7.1 The structure of Ateso verbs

To begin the discussion, the following sections make observations on the basic structure of the verb. It begins by presenting the subject and person marking followed by presentations on the verb classes before discussing other morphological components of the verb.

7.1.1 Verb classes and person marking

In the present analysis, Ateso verbs can be divided into two morphological classes: "class 1" and "class 2". According to Dimmendaal (1983b: 98), such a distinction is common for most Eastern Nilotic languages. The first class – also referred to as the "ko-class" has the prefix **a-** for the first person marker, as in the words **á-nɔ́m** 'I hit' and **á-lɛ́jî** 'I dance'.[31] The prefix **ɛ-** is used to mark the other persons in the same class, as in **ɛ́-lɛ́jî** '(s)he dances'. The second class – also referred to as the "ki-class", has the prefix **ɛ-** for the first person marker and **ɪ-** for all the other persons, as in the words **í-rʊ́m** '(s)he holds' and **é-lípî** 'I pray'. Verb prefixes stand for subjects and objects and are used to show concord between the subject and the verb or the object and the verb. The

[31] Barasa (2015: 26) uses imperatives personal markers to give the morphological distinctions of the two classes as "ko-class" and "ki-class". The two terminologies adopted by Barasa were coined by Hilders & Lawrance (1957: 29). The "ko-class" has the **kó-** prefix for commands (e.g. **kɔ́-nɔ́m** 'Hit!', **kó-búún** 'Come!' etc.). For class 2 or the "ki-class", a velar consonant **k** combines with **i-** to function as prefixes when used with imperative verbs (e.g. **kí-gír** 'Write!', **kí-kúŋá** 'Move!' etc.).

identity of the subject is normally recovered from context. Table (7.1) below further illustrates the two classes.

Table 7.1: Illustration of the two morphological classes

Class 1 verbs		**Class 2 verbs**	
á-nɔ́m	'I hit'	ɛ́-rʊ́m	'I hold'
ɛ́-dák	'you carry'	í-kúŋá	'you move'
é-búún	'(s)he comes'	í-líp	'(s)he prays'
ɛ́-lɛ́ɟí	'they dance'	í-gír	'they write'

As can be seen from Table (7.1), the person markers used on the verb reflect the morphological classes. The markers' ATR vowel quality adopts to that of the verb root (e.g. in the verb **é-búún** '(s)he comes' the [-ATR] person markers change to [+ATR] to be in line with that of the vowels of the verb root that it is attached to).

Similarly, object markers, will occur in their different allomorphs depending on the quality of the verb root. Consider the object markers for 1SG and 1PL according to the verb paradigms in Appendix 4.

Table 7.2: Object markers

Person	**Class 1**	**Class 2**
1SG	ka-	ki-
1PL	ka-	kɪ-

For class 1 1SG and 1PL, the object prefix is **ka-**, and the class 2 1SG and 1PL object prefix is **ki-**. The high tone on of the person prefix also applies to the vowels **a-** and **i-** that occur in the object prefix.

Dimmendaal (1983b: 99), in his analysis of Eastern Nilotic languages, of which Ateso is one, made a similar distinction. He notes that the specific morphological class to which a verb

belongs may also determine the form of the corresponding deverbative noun.[32] In addition, a class 1 verb becomes a class 2 verb when the causative marker is added to the verb form (cf. examples in section 8.1). A similar observation of the changes that can be influenced by class is made in Ateso. The prefixes for personal markers for the two classes are as presented in chapter four (see section on inflectional markers). Number marking of subjects on verbs is basically by plural suffixes **-te**, **-ta**, **-tu** and **si-** for second and third person plural.

7.1.2 Infinitives

There are two infinitive forms **a-** and **akɪ-** or **aɪ-**, the variation between the latter two depending on the dialect (cf. chapter two, section 2.2.2), that can occur with the verb root. The prefix **a-** is used with class 1 polysyllabic infinitive verbs while **aki-** and **ai-**, are used with class 2 infinitive verbs.

Also, **akɪ-** or **aɪ-** precedes class 1 infinitive verbs with a monosyllabic root of a CV or a CVC structure, as is with the verb **-ɲám** in Table (7.3). The infinitive form of the verb **-ɲám** is realised as **àkí-ɲám** or **àí-ɲám** and **à-ɲám** as it would occur with polysyllabic forms in the same class.

[32] Deverbatives are words that are derived from verbs but function syntactically as nouns or adjectives (Mundi & Corrigan 2013: 56). According to Dimmendaal (1983c), these nouns are all derived from verb roots or verb stems, and perform a derivational function in the lexicon, whereas some also perform a syntactic function.

Table 7.3: Illustration of the infinitive verb forms[33]

For class 1 verbs		**For class 2 verbs**	
à-ɲáráʊ̀n	'to call'	àkí-málá	'to greet'
à-túkónókín	'to collect for'	àí-málá	
àkí-ɲám	'to eat'	àkí-dák	'to carry'
àí-ɲám		àí-dák	
		àkí-pɔ́tɔ́	'to beat'
		àí -pɔ́tɔ́	

Examples appearing in pairs indicate variation that is dependent on the two dialects. In this case, the first example is from the Tororo dialect and the second one from the Teso and Pallisa dialect; if there is only one, both dialects have the same form.

Further, the number of moras in Ateso's verb stem determines the type of infinitive markers on the verbs. Consider illustrations in (1) where the first set on the left is the form with no suffix and the second set on the right has a ventive extension.

1. a. à-jàú — à-jà-ʊ́n
   INF-bring — INF-bring-VEN
   'to bring' — 'bring to the speaker'

   b. àkí-bʊ̀k — à-bʊ̀k-ʊ́n
   INF-pour — INF-pour-VEN
   'to pour' — 'to pour towards the speaker'

[33] The phoneme /i/ that is part of an infinitive morpheme is not part of the class 2 stem for two main reasons. Firstly, the prefix **aki-** or **ai-** also precedes class 1 monosyllabic verb roots such as ɲam; possible person marking on this verb would be **a-** or **ka-** for 1SG and 1PL, respectively, and **e-/ɛ-** for other persons. Secondly, the class 2 infinitive verb **àkí-málá**, for example, will be realized as **ɛ́-málá** or **kí-málá** when they occur with class 2 1SG and 1PL person prefixes, respectively, and as **í-málá** (e.g. in 3SG). The different person marking for class 2 show that though some person markers are similar in shape to the infinitive morpheme /i/; the morpheme might not be necessarily part of class 2 stem.

c. àí-bʊ̀k à-bʊ̀k-ʊ̀n
INF-pour INF-pour-VEN
'to pour' 'to pour towards the speaker'

The number of moras in the verb stem determines the type of infinitive prefix that occurs with it. Looking at the examples picked from the ventive discussion, the mono-moraic stem **bʊ̀k** occurs with the infinitive form **akɪ-** or **aɪ-** (e.g. in (1b) and (1c), respectively) while bi-moraic verb stems occur with the form **a-**, as in the stem **jàú** in (1a). When the ventive morpheme is suffixed to a monomoraic verb stem **bʊ̀k**, it leads to an increase in the number of moras in the stem and thus go with the infinitive marker **a-** as in example (1b) and (1c).

7.1.3 Verb root

The root of the verb is the form that remains when all inflectional and derivational affixes have been removed. A number of morphemes can be affixed to the verb root, and each of these morphemes serves a grammatical and semantic function. In most cases, the verb root accommodates derivation and inflection affixes in such ways that it makes it possible to have a clause which comprises only of one word (a verb and its inflectional and derivational morphemes). In case of verb only clauses, the prefix is the only expression of the subject or object.

The verb root together with all its affixes constitutes a phonological unit (as shown, for example, by vowel harmony rules operating within the word). The tone pattern on the verb root, as with (2a) below represents tense marking. Further, the root **-boe** 'stay' in example (2b) has the person marker prefix **e-** and the habitual and imperfective aspect markers suffixed to it.

2. a. á-mɔ́ŋ
1SG-cry:NPAST
'I cry'

b. é-bó-énén-é
3SG-stay-HAB-IPFV
'(s)he is staying'

c. àkí-ŋɛ́k
INF-leave
'to leave'

d. é-kwéná-kwéná
3SG-laugh-laugh:REP
'(s)he laughs repeatedly'

e. à-tʊ́-kʊ́rjân
INF-CAUS-threaten
'to threaten' (lit. to be made afraid)

Subject agreement markers for person and number are prefixed to the verb and must agree with overt or non-overt NP subjects in terms of person and number. The prefix **a-** in (2a) is the first person singular marker, while **e-** in (2b) is the third person singular for class 1 verbs, and **-enen** and **-e** the habitual marker and imperfective marker, respectively. Tense is marked on the verb root, as with **mɔ́ŋ** which has a high tone for non-past tense. The verb root can start with a vowel, as is the case of the initial vowel **-i-** in the verb **-íŋékíní** 'leave', or with a consonant, as is the case of **-mɔ́ŋ** in (2a) above. It can end either with a consonant, still as in (2a) where the verb root **-mɔ́ŋ** ends with the consonant **-ŋ**, or with a vowel, as in **ébóé** in (2b) which ends with a vowel **-e**. The verb root can also undergo reduplication in the formation of the iterative aspect, as in (2d). Furthermore, the verb root can be monosyllabic, as in example (2a), or have two or more syllables as in the verb **-ìtʊ́kʊ́rjân** 'threaten' in (2e), which has three syllables.

Most verb roots occur with the syllable structure CVC and CVCV. Other roots have the shape C(G)VC or C(G)VCV. Monosyllabic and disyllabic verbs are the most common type of syllables. Variances for monosyllabic structures can be CV, CVC or CGV. The CVG structure is always a result of modification by insertion of a glide for reasons explained in chapter three. Disyllabic verbs can either end with a vowel or a consonant. A vowel occurs word-finally or word-initially, a V.CVC sequence is the most prominent occurrence. Other syllable types for disyllabic verbs are CV.CV, CV.CVC and CVC.CVC. In rare cases, some disyllabic verbs occur with a CV.V structure. As mentioned earlier in the phonology chapter, consonant and VVV clusters are not allowed in the language, thus, a CC cluster is often resolved by insertion of an

epenthetic vowel. For a VVV cluster, either a glide intervenes to resolve the unlicensed vowel cluster or one vowel is deleted or fused into another.

The largest domain in the root is the morphological stem consisting of the agreement prefix, the verb root together with other elements of affixation. The different kinds of affixes that the verb takes form inflected/derived verbs. Most if not all the verb examples in this chapter and all other chapters are in stem form.

7.1.4 Morpho-syntactic analysis of the verb

Structurally, the present chapter integrates verb derivation processes that occur in the language and a discussion on the valency adjusting operations that is a result of derivational operations applied to the verb. This is for the reason that it is difficult to separate the interactions of morphology and syntax components of grammar in the discussion of the verb. Ateso verbal phrases are morpho-syntactically like words, in that the verb has slots and fillers where particular slots are filled by particular morphemes (Barasa 2015). It is necessary to merge the morphological and syntactic concepts into - morpho-syntax. This is especially important in near agglutinating languages like Ateso in which one verb can represent a whole sentence, hence the need for morphological and syntactic analysis at the same time.

Various devices are used for upgrading, downplaying or eliminating peripheral participants from the centre stage. These processes are universally referred to as valency increasing and valency reducing. Valence adjusting operations are common and almost a universal feature in verbal morphology. In Ateso, just like in many other languages of the world, these operations are realised by derivation. Change in valency is thus morphologically initiated, but it usually has consequences for the argument structure of verbs and the syntactic structure. Verb valence is also closely linked to the idea of transitivity. According to Payne (1997: 169), every language has operations that adjust the relationship between semantic roles and grammatical relations in a clause. It is on this assumption that the present study examines the valence adjusting operations that the Ateso verb displays. The study shows how the derived verbs can affect the number of agreeable valents, better known as arguments. Valency changing devices affect the clause structure by increasing or reducing the number of arguments in the verb. The discussion of these processes thus fits well after the analysis of each verb derivational extension as it makes it

possible to see the allomorphy and the syntactic consequences at the same time in the same section.

There are a number of arguments that Ateso verbs can allow and various valence adjusting morphemes that co-occur within the same verb. The valence of a verb can change depending on the valence adjusting operations that the verb undergoes. Traditional degrees of valency that have been recognised are:

(i) Intransitive (no direct object)
(ii) Monotransitive (direct object, no indirect object)
(iii) Ditransitive (direct object and indirect or oblique object)

Miller (1993: 142)

If a root takes only the subject, it is said to have a valency of one (monovalent). If it takes both the subject and the patient, then it has a valency of two (bivalent). A verb which takes no complements has zero valency (avalent) whereas a verb which attracts three arguments is said to be trivalent. Ateso verbs can be monovalent, bivalent or trivalent.

The following section establishes verb derivation extensions and how they affect the VS/VO word order especially with the operations that increase the valency of a verb. The grammatical valence (or syntactic valence) influences the number of arguments present in any given clause consisting of an extended verb.

7.1.5 Causatives

Causative verbs express the idea of 'a causer making somebody else do something and by this change the state of affairs'. According to Palmer (1994: 218), the causative involves some kind of marking on the verb, an addition of a causer in the subject position, a demotion of the other argument and the achievement of causal meaning. Causatives increase the valency of a verb by adding a causer to the scene. They influence meaning and determine the number and role of participants as expressed by the verb root. Causative meanings can be derived from stative and dynamic, and from transitive and intransitive verbs.

The following subsections present derivation of causatives from different verb forms. Examples are ordered as follows: a basic verb followed by its gloss, which in turn is followed by a derived causative and the gloss for the derived form in that order.

7.1.5.1 Causatives derived from stative verbs

Ateso causatives are marked by the morpheme **tV-**. The change of the verbal state by addition of a causative marker **tV-** produces an intensifying effect, that of 'making to become'. Example (3) shows causatives derived from state verbs.

3.	a.	é-mwânà	'it is hot'	à-tà-mwânà	'make to become hot'
	b.	é-kwâŋà	'it is white'	à-tà-kwâŋà	'to whiten'
	c.	ɛ́-lɛ̀lɛ̀t	'it is soft'	àkí-tɛ̀-lɛ̀lɛ̀t	'to soften'
	d.	é-kwânà	'it is sharp'	à-tà-kwânà	'to sharpen'
	e.	í-càsít	'it is hard'	àkí-tì-sìcàt	'to harden'
	f.	é-ùɟà	'it is long'	àkí-tù-ùɟà	'to lengthen'

For infinitive verbs, the infinitive morpheme **a-, aki-** or **ai-** (depending on the dialect) will precede the causative marker **tV-** which in turn is prefixed to the state verb resulting in causative meaning that the derived verb carries. Vowel harmony also influences vowel changes in the causative marker as illustrated by examples for 'soften' and 'harden' in (3c) and (3e), respectively, where the vowels on the causative marker have [-ATR] qualities following the quality of the root vowel. These means that all verbs with [+ATR] vowels have a causative with a [+ATR] vowel and those with [-ATR] vowels have a causative [-ATR] vowel quality. A causative marker added to most verbs does not lead to any change on the structure of the verb root, as with (e.g. the derived causative **àkí-tù-ùɟà** 'lengthen' whose root structure remain **ùɟà**). However, a significant morpho-phonological process, i.e. symbolism, is involved in the derivation of the causative from a state verb in (3e) which has a re-organised root structure.

7.1.5.2 Causatives in intransitive verbs

Intransitive verbs in Ateso, just by definition, do not require direct objects. According to Payne (1997: 171), an intransitive verb describes a property, state, or situation involving only one participant. The derived causative form from the intransitive verbs expresses a change of state

that is necessitated by the extension on the verb. Causatives derived from intransitive verbs are illustrated in (4).

4.	a.	àkí-lòs	'to walk'	à-tò-lòt	'cause to walk'
	b.	àkí-mɔ̀ŋ	'to cry'	àkí-tɔ̀-mɔ̀ŋ	'cause to cry'
	c.	à-ɟòtòr	'to sleep'	àkí-tò-ɟòtòr	'cause to sleep'
	d.	àkí-ɟòr	'to talk'	àí-tò-ɟòr	'cause to talk'
	e.	à-kwènà	'to laugh'	àí-tè-kwèn	'cause to laugh'
	f.	à-làkàrà	'to happy'	àí-tà-làkàrà	'cause to be happy'

The causative derivational process for intransitive verbs is similar to that of state verbs. An infinitive prefix **aki-** or **ai-** and a derivational prefix marker **tV-** derive a causative from an intransitive verb. The vowel of the causative assimilates to the root of the verbs that have a vowel segment at their initial position as can be observed in the marker for words such as **ákì-tè-kwèn** and **ákì-tà-làkàrà** where the **i-** in the infinitive marker assimilates to **e** and **a**, respectively. Assimilation of these vowels is a consequence of vowel harmony since the vowel of the causative assimilates to the root vowel of the verb. The verb for 'walk' undergoes partial change in the root structure after derivation by change of its final consonant from a stop /t/ to a fricative /s/ when a causative is added to it.

7.1.5.3 Causative derived from mono-transitive verbs

Causatives can also be derived from mono-transitives (verbs that occur with direct objects only) so as to express causative or an idea of assistance. The causative markers of **tV-** together with the infinitive affix are prefixed to the mono-transitive verb root. Infinitive verb forms facilitate comparison with the causative forms. Example (5) illustrates derivation of the causatives from mono-transitive verbs.

5.	a. àkj-àrà	'to kill'	àkí-tà-jàr	'cause somebody to kill'
	b. à-dàùn	'to finish'	àkí-tà-dàùn	'make somebody to finish'
	c. à-pòròr	'to jump'	àkí-tò-pòlòr(i)	'make somebody to jump'
	d. àkí-gwɛ̂l	'to buy'	àkí-tɛ̀-gwɛ̂l	'make somebody to buy'
	e. àkí-bìl	'to break'	àkí-tì-bìl	'make somebody to break'
	f. àkí-ɲàm	'to eat'	àkí-tà-ɲàmà	'make somebody to eat'

Changes or occurrence of causative morphemes in either [+ATR] or [-ATR] is as a consequence of the ATR harmony rules as influenced by the nucleus of the verb stem. The [-ATR] vowel quality of the roots causes the derivational morphemes for 'jump', 'buy' and 'break'to have [-ATR] qualities. The rest of the derivational prefixes have [+ATR] qualities in line with those of the verb nucleus.

A causative extension leads to an increase in the number of arguments of the verb. Causatives can extend both transitive and intransitive verbs. The following examples demonstrate how the causative increases the valence of a verb in a clause.

6. a. é-tì-bìl-ì-tè ídwé àmɔ̀t(í)
3-CAUS-break-IPFV-PL child/ABS pot/ABS
'they caused the children to break the pot'

b. á-tà-ɲàmà késì émògò
1SG-CAUS-eat them/ABS cassava/ABS
'I cause them to eat cassava (or I feed them cassava)'

From the illustrations, it is clear that the causative verbal extension affects argument structures. A causative added to the verbs in (6a) and (6b) empowers the transitive verbs **é-tì-bìl-ì** and **á-tà-ɲàmà**, respectively, to have two object arguments. A new subject '3PL-they' is introduced in the causative construction though it is not overtly expressed by an overt independent person pronoun but it is marked on the verb by **e-** while the initial subject **ídwé** 'children', transforms into an object. There is an additional argument **àmɔ̀t(í)** 'pot' in the clause in (6a). As a consequence of the addition of the causative features **ta-**, prefixed to the verb, a change in meaning and constituents of the basic sentence structure is created. The derived verb expresses an action of the 3PL causing 'children' to 'break' as well as provides an additional object **àmɔ̀t(í)** 'pot'. When a

causative marker is added to the verb in (6b) a 1SG pronoun is introduced as the new subject. The initial subject **kèsì** '3PL' is pushed to the object position which consequently affects its case – changing it from nominative to absolute. The two verbs 'break' and 'eat', describe events that are initiated by the subject; affecting both the direct and indirect object.

Intransitive verbs marked for causative add a causer to the construction. The base agent (or causee) is expressed as an object. The first two clauses do not have a causative marker prefixed to the verb while clauses (7c) and (7d) have the same verbs with a causative marker prefixed to them.

7. a. ɛ́-mɔ̀ŋ ɟàɟà
   3SG-cry:PAST aunt:SG/NOM
   'the aunt cried'

   b. é-ɟór-í í-kòkù
   3SG-speak-IPFV D-child/NOM
   'the child is speaking'

   c. ɛ́-tɔ́-mɔ̀ŋ à-kàmʊ̀ràn ɟáɟà
   3SG-CAUS:PAST-cry F/SG-mother.in.law/NOM aunt:SG/ABS
   'the mother-in-law made aunt cry'

   d. é-tò-ɟòr à-bɛ̀rʊ̀ í-kókù
   3SG-CAUS:PAST-speak F/SG-woman/NOM D-child/ABS
   'the woman made the child to speak'

The subject **ɟàɟà** 'aunt' in (7a) moves to the object position and it is replaced by **àkàmʊ̀ràn** 'mother-in-law' in the subject position in (7c) after introducing a causative marker to the verb ɛ́-**mɔ̀ŋ**. In the case of (7b) the subject, **íkòkù** 'child' becomes an object and a new subject **àbɛ̀rʊ̀** 'woman' is created when a causative morpheme is introduced to the verb **é-ɟòr** in (7d).

Two arguments can be added to a stative verb that is derived by causatives extensions. The resulting clause has a derived verb, a subject and an object. This can be illustrated as follows:

8. a. é-mwànà
      3SG-hot
      'it was hot'

   b. ɛ́-sìcàt
      3SG-hard
      'it was hard'

   c. á-tà-mwànà àkìpí
      1SG-CAUS:PAST-heat water/ABS
      'I heat the water'

   d. ɛ́-tì-sìcàt àmɔ̀t(í)
      3SG-CAUS:PAST-hard pot/ABS
      '(s)he hardened the pot'

Two arguments are added to the stative verbs **è-mwànà** and **ɛ̀-sìcàt** in (8a) and (8b) when causative morphemes are prefixed to them, as with (8c) and (8d), respectively. In the construction in (8c), the added agent makes the water warm by heating it. The sentence has two more arguments after derivation, i.e.the 1SG and **àkìpí**. The subject '3SG' in (8d) performs the action that makes the object **àmɔ̀t(í)** 'pot' to harden. The inflectional prefix on the verb references the subject, 1SG in example (8c) and 3SG in example (8d).

To sum up the discussion in this section, causatives on different verb types are derived by a causative marker of the shape **tV-**, where the V, can either be a [-ATR] or a [+ATR] vowel as influenced by the ATR vowel qualities of the verb root. Causatives are valence increasing derivations since they add the causer to the already existing valents.

7.1.6 The ventive and itive

Verb stems can also be extended by the ventive and itive markers.[34] Both the ventive and itive extensions are used with verbs that signal motion. For instance, if the speaker tells the addressee

[34] The Latinate labels "ventive" and "itive" have also been used to express centrifugal or centripetal motion in some Eastern Nilotic languages (e.g. by Dimmendaal 1983 and Lesley-Newman 2007).

(e.g. a visitor) in Ateso, "Please enter my house", (s)he has to add either the ventive or itive depending on where the speaker (deictic centre) is. If the speaker is already inside, (s)he will use:

9. kɔ́-lɔ̀m-ʊ̀ ò-tógò
   IMP-enter-VEN LOC-house/LOC
   '(please) enter the house'

If the speaker (host) is already outside and (s)he invites the addressee in the house ("after you, my guest"), (s)he will say:

10. kɔ́-lɔ̀m-à ò-tógò
    IMP-enter-IT LOC-house/LOC
    '(please) enter the house'

The suffix **-ʊ** and **-a** are ventive and itive markers, respectively. Ventive and itive marking in Ateso (and numerous other African languages) is important for 'evidentiality' marking.[35] By making clear (morphologically) that something happens/ed towards the speaker, or away from the speaker, the speaker also makes it clear that (s)he witnessed the event. This way, the addressee knows that the speaker is not just reporting on something (s)he heard by coincidence. By adding the ventive and itive marker, the addressee knows where the speaker was (inside or outside) at the point of utterance. In his analysis of Tima derivational suffixes, Dimmendaal (2014: 251) posits that, if no ventive or EGO marking is used, the conversational implicature is that the speaker (or the protagonist in a story) is not a witness to the event described. This also applies to Ateso where the presence and location of the speaker plays a central role in interpretation of meaning by the addressee. The following sections discuss ventive and itive marking in more detail.

7.1.6.1 The ventive

Derivation of the ventive is realised by suffixing a ventive extension **-ʊn** or **-ʊ** to the verb stem, the actual form depending on the specific paradigm in which the verb occurs. Apart from

[35] Evidentiality in the present context relates to the speaker's knowledge source and his or her assessment of the degree of certainty and reliability.

appearing as either [+ATR] or [-ATR] the ventive **-ʊ** can sometimes occur in devoiced form depending on the morpho-syntactic usage of the verb. The derivational morpheme introduces motion towards the speaker (deictic centre) where the speaker gets the direct effect of the action. Ventive extension markers operate within the vowel harmony rules which apply to the verb stem and the extension.

11. a. àkí-ɲàk — à-ɲàk-ʊ̀n
    INF-return — INF-return-VEN
    'to return' — 'to return to the speaker'

    b. àkí-gwɛ̂l — à-gwɛ̂l-ʊ̀n
    INF-buy — INF-buy-VEN
    'to buy' — 'to buy and bring to the speaker'

    c. àkí-kám — à-kám-ʊ̀n
    INF-catch — INF-catch-VEN
    'to catch' — 'to catch something thrown towards the speaker'

    d. àí-dòl — à-dòl-ʊ̀n
    INF-arrive — INF-arrive-VEN
    'to bring' — 'to arrive (near the speaker)'

    e. à-jàú — à-jà-ún
    INF-bring — INF-bring-VEN
    'to bring' — 'bring to the speaker'

Infinitive verb forms allow the ventive extension **-ʊn** only. The infinitive form **aki-** or **ai-** occurs with mono-moraic roots, as in (11a-d) while **a-** is used with bi-moraic forms, as with **à-jàu** in (11e). When mono-moraic verbs are extended by the ventive marker, **a-** is used instead of akɪ-. The same rule applies to the itive forms discussed in 7.1.7.1.

The ventive marker is used to introduce the meaning of motion towards the addresser. In inflected verb forms, such as the one used in the introductory part of this sub-section, a ventive **-ʊ** is used. This results to two possibilities that serve as ventive extensions, i.e. **-ʊn** and **-ʊ**. The

ventive morpheme **-ʊ** is used with imperative forms only, such as the verb in (9), while **-ʊn** is suffixed to other verb forms, as with the infinitives in (11).

A high or low tone is expressed on the ventive morpheme. Suffixation of the ventive morpheme on the verb for 'bring' in (11e) leads to a VVV '**auu**' string that is 'disallowed' in the language. To avoid a VVV string, the last vowel **-ʊ** on the verb stem fuses with that of the ventive morpheme. The ventive form will thus be realised as **à-jà-ʊ́n** instead of **à-jàú-ʊ́n**.

7.1.6.2 The itive

An itive marker **-Vr(i)** suffixed to the verb stem is used to express 'direction away from the addresser'. The resulting meaning is opposite that of the ventive. Based on the ATR harmony, the itive markers can be; **-ar**, **-a, -ɔ** or **-ɔr**. Consider the following examples:

12. a. àkí-càk — à-càk-àr(ɪ)
    INF-throw — INF-throw-IT
    'to throw' — 'to throw away from the speaker'

    b. àkí-kʊ̀ŋ — à-kʊ̀ŋ-àr(ɪ)
    INF-move — INF-move-IT
    'to move' — 'to move away from the speaker'

    c. à-sʊ̀kʊ̀ŋ — à-sʊ̀kʊ̀ŋ-àr(ɪ)
    INF-push — INF-push-IT
    'to push' — 'to push away from the speaker'

    d. àkí-pét — à-pɛ́t-ɔ́r
    INF-kick — INF-kick-IT
    'to kick' — 'kick away from the speaker'

    e. àkì-bùk — à-bùk-òr(i)
    INF-pour — INF-pour-IT
    'to pour' — 'to pour away from the speaker'

f. àkí-bìl à-bìl-àr
INF-break INF-break-IT
'to break' 'to break away from the speaker'

To obey the ATR harmony rules as discussed in the chapter on phonology, verbs with [-ATR] nucleus occur with the itive marker **-ar**, **-a, -ɔ** or **-ɔr**, as with examples in (12a) and (12b) above. On the other hand, verbs with [+ATR] high or low vowel nucleus derive the itives by adding the **-or** and **-o** extensions to the stem as evidenced e.g. in (12d).

Apart from signalling motion relative to a deictic centre, ventives and itives can also be used in a metaphorical sense. The non-locative forms found in the language are as follows:

13. a. à-gwɛ̂l-ʊ̀n
INF-buy-VEN
'to expose'

b. à-ɲàm-ʊ̀n
INF-eat-VEN
'to wear out'

c. à-là-àr
INF-clean-IT
'to be innocent'

d. à-rít-àr
INF-chase-IT
'to chase off'

The ordinary meaning of (13a) is 'to buy and bring to the addresser' but metaphorically, it is used to mean 'to expose'. Basic meanings for (13b), (13c) and (13d) are 'to eat', 'to clean' and 'to chase' away from the speaker, respectively. Metaphorically, the meaning for the same verbs changes to what is expressed in the gloss, in (13) i.e. 'to expose', 'to be innocent' and 'to chase off'.

7.1.7 The dative

Beneficiary roles are expressed by dative markers **-akin** or **-okin** (as well as additional allomorphs) suffixed to the verb stem.[36] A verb stem with a dative extension implies an action done on behalf of someone. A dative morpheme follows the verb root or a verb stem. It introduces a participant for whom the action is carried out. The natural order is that the participant is human or animate.

14. a. á-lɛ́m-ákín
    1SG-remove-DAT
    'I remove for'

    b. é-búk-ókín
    3SG-pour-DAT
    '(s)he pours for'

    c. é-dùk-òkìn
    3SG-build-DAT
    '(s)he built for'

    d. í-líp-ókín-í-tè
    3-pray-DAT-IPFV-PL
    'they are praying for'

The two variants of the dative morpheme are phonologically conditioned by the ATR quality of the verb root vowels. The marker **-okin** occurs with verbs that have [+ATR] vowels as with **é-búk-ókín** while **-akin** is used with verbs that have [-ATR] nucleus such as **á-lɛ́m-ákín** in (14a).

A dative increases the valency of a verb by foregrounding a peripheral participant, that is, by making the participant an 'applied' direct object. A transitive verb occurring in a VSO

[36] The term 'dative' best represents the meaning and function of this marker since the extension also expresses a thematically incorporated location or direction as is the case with Teso-Turkana languages (cf. Dimmendaal 2009). The marker has many more functions in Ateso, (e.g. malefactive i.e. at the expense of somebody, **-sil-ikin** 'be embarrassed for'). Bantu specialists prefer to call it the benefactive; the instrumental and the benefactive together are referred to as the applicative.

constituent structure becomes ditransitive (with a VSOO constituent order) when a dative morpheme extends it.

15. a. á-dùk-òkìn ìpéɟók ètògó
1SG-build:PAST-DAT visitor/PL/ABS house/SG/ABS
'I built a house for visitors'

b. á-lɛ̀m-àkìn ìsáp àcúpát
3SG-eat:PAST-DAT boy/PL/ABS bottle/SG/ABS
'(s)he removed a bottle for the boys'

The prefix **a-** on the verbs in (15a) and (15b) is a portmanteau morpheme expressing third person as well as fused past and it is similar to that of Toposa and Turkana marking. It also integrates the component of personal markers depending on number, subject and verb class. The two transitive verbs in (15), 'build' and 'remove', become ditransitive when a dative morpheme is added to them. Thus, datives result in two arguments in the verb phrase structure. The objects ìpéɟók and étógò in (15a) and the objects ìsáp and àcúpát have absolute tone and are complements to their respective verbs.

7.1.8 The instrumental

Instrumentals indicate the object or tool used by the agent (subject) to accomplish an action. They are formed using the derivational allomorphs **-io** or **-ɪa** suffixed to a verb stem.

16. a. à-bàrɛ̀n à-bàrɛ̀n-ìà 'shave with'
b. àkí-ɲàm à-ɲàm-ìà 'eat with'
c. àkí-dùk à-dùk-ìò 'built with'
d. àkí-búk à-búk-ìò 'pour with'
e. àkí-bàp à-kí-bàp-ìà 'to slap with'
f. à-ŋɛ̀d(ì) à-ŋɛ̀d-ìà 'to cut with'

The instrumental extension **-io** is used with [+ATR] roots while **-ɪa** is used with [-ATR] verb roots. With this regard, **à-bàrɛ̀n** and **à-dùk**, will take **-ɪa** and **-io**, respectively. If a verb ends with a vowel phoneme, the first vowel of the extension is changed to a glide as influenced by the glide

formation rule that applies in Ateso. To illustrate this rule, the instrumental form for 'to cook' will be realised as **à-kìpɔ̀-jò** 'to cook with' and not **à-kìpɔ̀-ìò** when an extension is added to it.

An instrumental morpheme increases the valency of the verb by changing the instrument into an object of a clause. Either of the two suffixes is used in licencing an instrument NP that is used to perform the action of the verb.[37]

17. a. à-kɔ̀r-ìà àmànà
3SG-dig:PAST-INST farm/ABS
'I dug the farm with (an instrument)'

b. í-bél-ít-ìò
3SG-split-PFV-INST
'(s)he has split with (an instrument)'

c. á-ɟɛ̀p-ìà à-kítòì
1SG-cut-INST N-stick/ABS
'I have cut a tree with (an instrument)'

The instrument used to complete the action of the verb can easily be isolated by the speaker or the addressee from the derived construction since it is used as an agent of the verb to perform an action. In (17a), an instrument is used to perform the activity of 'digging'; also, the 'splitting' in (17b) is done with an instrument. For (17c), an instrument is used to cut a 'tree'.

7.1.9 The iterative

The iterative is a derivational strategy marking situations that are repeated or are done over and over again. A complete reduplication of the verb root is used to indicate an event which takes place repeatedly either in the past or in the non-past tense. The identity of the material added on the verb is partially or wholly determined by the base. Reduplicated forms can be followed by aspect markers as with examples in (18) and (18b) which have an imperfective maerker i-.

Consider the following examples illustrating iterative aspect in non-past tense:

[37] The instrumental morpheme suffixed on the verb shows that an action was performed using an instrument but the instrument is not mentioned. It is thus underlyingly ditransitive because the argument does not show up.

18. a. é-bíl-í-bíl-í à-pèsè àkítòì sáálò
3SG-break-EV-break-IPFV F/SG-girl/NOM sticks/ABS now
'the girl is breaking sticks repeatedly'

b. é-pét-é-pét-í nèsí sáálò
3SG-kick-EV-kick-IPFV 3SG/ABS now
'(s)he is kicking him/her now repeatedly'

c. é-gwáŋ-á-gwáŋ-tè à-cùpàè
3-break-EV-break-PL N/PL-bottle/ABS
'they break the bottles frequently'

Verb stems **bíl** 'break', **pɛ́t** 'kick' and gwáŋ 'break', undergo reduplications to mark the iterative aspect, i.e. to denote that actions are performed repeatedly. The root peaks change to [+ATR] qualities because the IPFV is under-lyingly a [+ATR] marker. From the available data, all verbs that undergo reduplication to indicate frequentive action have a CVC structure. A high tone, stretching over the verb, marks the non-past tense. An EV is used to syllabify CC structure which would otherwise remain unsyllabified. The EV vowels **-i-**, **-e-** and **-a-** are similar to that of the preceding vowel in the verb root and they occur after the first verb stem of the CVC form or one with a closed syllable. The tone of the preceding vowel also copies to the epenthetic vowel.

To indicate an activity that takes place in the future regularly, auxiliary verb forms **ábútó** and **ébútó** (corresponding to 'will' in either case with differences resulting from the person marker) are used together with the reduplicated verb root, while the high tone stretching over the whole verb marks tense.

19. a. á-bútó á-bíl-í-bíl-í
1SG-AUX 1SG-break-EV-break-IPFV
'I will be breaking frequently'

b. é-bútó á-bíl-í-bíl-í
3-AUX 3-break-EV-break-IPFV
'they are going to break frequently'

The auxiliary forms **ábútó** is used with the first person singular. On the other hand, **ébútó** is used with the third person plural here but may be used with other persons in different structures. Whenever the two auxiliary verbs are used with the main verb, both verbs are inflected for tense and person.

The iterative in the past tense will be illustrated as follows:

20. a. á-bìl-ì-bìl-ì ékárû ɟé
1SG-break-EV-break:PAST-IPFV year last
'I was breaking repeatedly last year'

b. é-pèt-è-pèt-è nèsí ékárû ɟé
3SG-kick-EV-kick:PAST-IPFV 3SG/ABS year last
'(s)he kicked him/her repeatedly last year'

In example (20) above, the past tense is marked by the low tone on the reduplicated verb root. The reduplicated verb roots are **-bìl-** and **-pɛ̀t-** for (20a) and (20b), respectively. An IPFV in both (20a) and (20b) follows the reduplicated form and not the base form.

7.1.10 Pluractionality

Pluractionality of the verb, a feature that occurs in Ateso verbal morphology, involves repetition of the non-telic verb root.[38] The reduplicated form serves as an extension to the simple verb implying intensified activity of that which is inferred in the base form. Elements that have undergone pluractionality may be used to encourage or command someone to continue doing something at an intensified or fast pace. It occurs with the imperative morphemes when used to express command. Basically, pluractionality expresses intensity or frequency and may also be used with infinitive forms as with (21c) and (21d).

21. a. kó-kórú-kó-kórú
IMP-dig-IMP-dig
'dig, dig very hard'

[38] Verbs that do not have end points

b. kó-ɲám-á-kó-ɲám
IMP-eat-EV-IMP-eat
'eat, eat fast'

c. á-kérí-kérí
INF-run-run
'to run, run (run fast fast)'

d. á-póé-póé
INF-cook-cook
'to cook, cook (don't waste time)'

The tone of the original root is the same as that of the repeated form. An epenthetic vowel is added in (21b) for syllabification of the structure which would otherwise remain unsyllabified since two consonants cannot stand together in the same word. The epenthetic vowel is similar in shape to the vowel in the verb root. For reduplicated infinitive verbs in (21c) and (21d), the infinitive morpheme only appears with the root. Both pluractionality and the iterative involve reduplication of the verb root. Conversely, pluractionality involves imperative or infinitive markers that are prefixed to the base root only or to the root and the reduplicated segment.

7.1.11 Voice

Ateso has grammatical devices that signal voice. There are two voices that structure the grammatical positioning of the subject, that is the active and the passive. The language's active voice is unmarked while the passive is marked by suffixes on the verb.

The passive markers precede prototypical inflectional markers, but they follow derivational markers like: the ventive, itive or dative, so in this respect do not have the same status or position as inflectional markers in the grammatical system of Ateso. However, passive markers do affect the argument structure of the verb (in the same way that the causative or dative does), thus, they are more derivational than inflectional in nature. The passive is a valency decreasing device.

7.1.11.1 Active voice

In the active voice, the subject performs the action expressed by the verb (cf. e.g. Radford 2004: 133). The prevalent word order for active voice is VSO though some other orders also occur, as in (22c), which has an interrogative pronoun preceding the verb. There are no specific extensions for the active voice, thus it is expressed as the only unmarked voice in the language. Consider the following constructions:

22. a. à-íkà órè
       3SG-go home/ABS
       '(s)he has gone home'

    b. á-bútó á-kílótó é-tógò
       1SG-AUX 1SG-clean M/SG-house/ABS
       'I will clean the house'

    c. ŋàí kègwàŋì àmɔ̀t(í)
       IP-who break:PAST F/SG-pot/ABS
       'Who broke the pot?'

    d. é-gwèl-è àpèsè íkítàbòí
       3SG-buy-IPFV girl/SG/NOM book/PL/ABS
       'the girl was buying books'

All the examples in active voice illustrate that the actor occurs before the patient which coincides with the indicative mood. The morphological integration of the subject (e.g. the 3SG in (22a)) on the verbal structure and independent subject pronouns are omitted as they can easily be recovered from context. For nominal subjects, both the inflection personal prefix and the N subject are overtly expressed as with (22d) which has a 3SG prefix on the verb stem and the N subject **àpésé**.

7.1.11.2 Passive voice

Though not commonly used in the Ateso native speaker's speech, Ateso has morphological constructions for passive voice. Passive forms are used to indicate that the action is 'done to' as opposed to the action being 'done by', as in active forms. Unlike in other languages that have the

passive form (e.g. English), in Ateso the agent is never expressed in the passive construction. An introduction of a passive morpheme leads to a reduction in the number of arguments in a clause. Basically, passivisation is an operation that suppresses the agent (which must be omitted in Ateso), and promotes the patient (see e.g. Dixon 1994: 146, Spencer et al. 1991: 210). As will be illustrated below in this section, the passive in Ateso is a valence reducing operation.

Keenan & Matthews (2007: 3-4) argue that passives should not be thought of as a demotion from active clauses. They suggest that the derivation of the verb phrase should be the criterion for passive forms. However, the present study basically uses the active forms as discussed above to indicate the clauses change in transitivity and valence after passivisation. Example (23) shows the passive suffixes that are used to form passives from infinitive verbs.

23.

	Basic verb		**Derived verb**	
a.	àkí-àrà	'to kill'	á-àr-àì	'I was being killed'
b.	àkí-pɔ̀t	'to beat'	é-pòt-òì	'they were being beaten'
c.	à-màɲà	'to marry'	á-màɲ-àì	'I was being married'
d.	à-lím-ókín	'to tell for'	í-lìm-ókìn-òì	'(s)he is being told (for)'

Passives are marked by the morphemes **-aɪ** and **-oi** suffixed to the verb stem. The former occurs with -ATR verb roots while the latter with +ATR. Verbs with -ATR roots such as **á-àràì** 'I was being killed' use the morpheme **-aɪ** while **-oi** is used with verbs that have +ATR roots (e.g. **é-pòt-òì** 'they were being beaten'). The passive may occur as further illustrated below.

24. a. é-sèùn à-bɛ̀rʊ̀ éˬ djá
3-pick:PAST F/SG-woman/NOM vegetables/ABS
'the woman picked the vegetables'

b. é-sèùn-òì éˬ djá
3-pick:PFV-PASS vegetable/ABS
'the vegetables have been picked'

As can be noted from the data, the direct object **éˬ djá** appearing after the subject in the underived clause in (24a) occurs in absolute instead of nominative case in the derived clauses in (24b).

Generally, a construction is classified as a canonical passive if it displays the following characteristics as listed by Dixon & Aikhenvald (2000: 13): (1) it contrasts with another construction, the active; (2) the subject of the active corresponds to a non-obligatory oblique phrase of the passive or is not overtly expressed; (3) the subject of the passive, if there is one, corresponds to the direct object of the active; (4) the construction is pragmatically restricted relative to the active; and, (5) the construction displays some special morphological marking of the verb. So far, the examples above show that Ateso has property (1), (4) and (5).

Besides the property of the passive, however, a further complication in Ateso is that the passive patient looks like an object, as it carries the absolute tone marking. This kind of passive is also known as 'non-promotional passive' where the patient continues to exhibit the syntactic behaviour of the object rather than subjects.[39] This is illustrated in the following constructions:

25. a. ɛ́-nɔ̀m è-mòɟòŋìt àmúŋètè
3-kick:PAST M/SG-old.man/NOM ball/ABS
'the old man kicked the ball'

b. ɛ́-nɔ̀m-àì àmúŋètè
3-kick:PFV-PASS ball/SG/ABS
'the ball has been kicked'

In (25b), the patient **àmúŋètè** has absolute case, a property of the object and not nominative case as would be expected of a subject property. Obviously, there is no indication that **àmúŋètè** in (25b) has been interpreted as a subject since it is marked the same way as the object in (25a).

At this point, the question is how to prove whether the passive as illustrated above is non-promotional or the other option would be that the above forms do not exhibit passive at all but an impersonal construction. According to Siewierska (2010: 79), the so called non-promotional or impersonal passive are those where the noun phrase with object properties is not promoted to subject but continues to display object properties. The non-promotional can be regarded as impersonal constructions where the personal marking on the verb refers to an impersonal agent

[39] Ateso's subject exhibits the following morphosyntactic features: (i) the subject-verb agreement relates to number agreement between the subject and the verb, prefixes on the verb stem codes the person and number of features of the subject; (ii) the subject is marked nominative.

of the act. The construction in (25b), for instance, would imply that ‘someone has kicked the ball’. The agreement **ɛ-** on the verb could refer to either an unknown person ‘someone’ or ‘the ball’.

But there is one proof from the following constructions:

26. a. é-tè-pèr-ì àbɛ̀rʊ̀ sjô
3SG-CAUS-sleep:PAST-IPFV woman/NOM 1PL/ABS
‘The woman put us to sleep’ (active)

b. kí-tè-pèr-òì sjô
1PL-sleep:PAST-PASS 1PL/ABS
‘We were put to sleep’ (passive)

As shown by the construction in (26b), there is a clear indication that the object has acquired the morphological property of the subject, i.e. the property of subject verb agreement, which is displayed on the verb by the morpheme **ki-** marking 1PL. The agreement morpheme **ki-** on the verb agrees with the subject of the clause, the **sjô** ‘us’. Since there is acquisition of subject properties on the part of the patient, the construction is considered to be a “passive” of the non-promotional kind. Compare the constructions in (26) with the examples below:

27. a. é-tè-pèr-ì àbɛ̀rʊ̀ íjò
3SG-CAUS-sleep:PAST-IPFV woman/NOM 2PL/ABS
‘the woman put you to sleep’ (active)

b. é-tè-pèr-òì íjò
2PL-CAUS-sleep:PAST-IPFV 2PL/ABS
‘you were put to sleep’ (passive)

28. a. é-tè-pèr-ì àbɛ̀rʊ̀ nésì
3SG-CAUS-sleep:PAST-IPFV woman/NOM 3SG/ABS
‘the woman put him to sleep’ (active)

b. é-tè-pèr-òì nésì
3SG-CAUS-sleep:PAST-IPFV 3SG/ABS
‘(s)he was put to sleep’ (passive)

For the examples in (27a) and (28a), the agreement marking marks the subject **àbɛ̀rʊ̀**, that which has nominative case. On the other hand, the morpheme **ki-** in the constructions in (26b), agrees with **sjô** which has object marking because it is the 1PL marker. In (27b), the prefix **e-** agrees with the object **íjò** ‘you’ which is a 2PL while **nésì** a 3SG agrees with the 3SG prefix **e-** on the verb in (28b). The agreement features on the verbs in the three latter constructions listed here show that they have acquired subject features and can thus be called “passives” of the non-promotional kind.

7.1.12 Reciprocal

Verbal suffixes **-o** and **-a** are used to derive reciprocals from basic verb forms. The suffixes are dependent on the ATR verb root quality: **-o** is used with verbs that have [+ATR] peaks while **-a** is used with those with [-ATR] nucleus. The appearance of reciprocal forms in Ateso’s derived verbs presupposes participants that are not articulated segmentally.

Reciprocity requires the presence of at least two participants who are affected by the action of one verb. Arguments in the reciprocal will thus take the role of agent as well as patient. Subjects in the reciprocal segments are co-referential with the presupposed agents, i.e. the patient and the agent are the same participant in the discourse world. Consider the following examples.

29.	**Basic verb**		**Derived form**	
a.	à-kàdàk	‘to hate’	à-kàd-àkìn-à-sì	‘to hate each other’
b.	à-mìnà	‘to love’	à-mìn-àkìn-ò-sì	‘to love each other’
c.	à-màlà	‘to greet’	à-màl-àkìn-à-sì	‘to greet each other’
d.	à-kjàrà	‘to kill’	à-kjàr-àkìn-à-sì	‘to kill each other’
e.	à-kìkòò	‘to bruise’	à-kìk-òkìn-ò-sì	‘to bruise each other’
f.	é-ɲùkjà	‘they sent’	é-ɲùk-òkìn-ò-sì	‘they sent each other’
g.	ɛ̀-bɔ̀jì	‘it sat’	ɛ̀-bɔ̀j-ìkìn-à	‘it sat itself’

As illustrated in (29), either the dative morphemes **-akın** or **-okin** are required in formation of reciprocal constructions. For instance, **à-màlà** in (29c) has [-ATR] vowels and thus take the reciprocal morpheme **-a** as opposed to **-o** which applies to à-**kìkòò** in (29e) that has [+ATR] vowels in its nucleus. The order of morphemes is such that dative markers appear first followed by the reciprocal marker which in turn precedes plural morphemes if any. The integration of the reciprocal into the verb leads to a change in the argument structure of the verb.

30. a. ɛ́-mìnà-sì kèsí
3-love:PAST-PL 3PL/ABS
'they loved them'

b. ɛ́-mìn-àkìn kèsí à-pésé
3-love:PAST-DAT 3PL/ABS F/PL-girl/ABS
'they loved the girls for them'

c. é-mìn-àkìn-ò-sì kèsì
3-love:PAST-DAT-REC-PL 3PL/NOM
'they loved each other'

31. a. ɛ́-màlà-sì à-pésé
3-greet:PAST-PL F/PL-girl/ABS
'(s)he greeted the girls'

b. ɛ́-màl-àkìn à-pésé nésì
3-greet:PAST-DAT F/PL-girl/ABS 3SG/ABS
'(s)he greeted the girls for him/her'

c. ɛ́-màl-àkìn-à-sì à-pésé
3-greet:PAST-DAT-REC-PL F/PL-girl/PL/NOM
'the girls greeted each other'

The clauses with distinct verb roots for (30) and (31) are used to indicate the changes that take place when different morphemes are added to them. The structures in (30a) and (31a) do not have the dative and reciprocal markers: here, the subject is marked by an inflectional pronoun and the recipient has absolute tone. Addition of a dative morpheme **-akın** leads to an additional

argument **à-pésé** besides 3SG in (30b) and (31b), respectively, both marked with absolute tone. For (30c) and (31c), which has both the dative and reciprocal markers, the events or changes of state denoted by the reciprocal affect the subjects 3PL and **à-pésé** that are also initiators of the event.

7.1.13 Summary of derivational affixes

Derivational affixes discussed above are used to derive verbs indicating specific semantic qualities such as causatives, ventives, itives, datives, and instrumentals. They also have syntactic qualities like argument changing power for the verb root and sentence structure. Verbal extensions occur as suffixes, except for the causatives which are prefixed to the verb.

To provide an overview of the extensions in the language different derivational affixes that have been attested for the Ateso verb are given in Table (7.4). Except for the causatives which occur as prefixes, the rest of the extensions are suffixes.

Table 7.4: Verbal derivation extensions

Extension type	**Affix**
Causatives	tV- (where V is either +/-ATR)
Ventive	-ʊn, -u, -ʊ
Itive	-ar(i), -or(i), -ɔ, -a
Dative	-okin, -akɪn
Instrumental	-io, -ia
Iterative	reduplication of the verb root
Pluractionality	IMP + reduplication of the verb root
Passive	-oi, -ai
Reciprocal	-o, -a

There is a series of allomorphs, which apply to the extensions, whose form depends on the form of the verb root and vowel assimilation strategies as discussed in the phonology chapter. Where different allomorphs occur, both [+ATR] and [-ATR] variants are given except for causatives where possibilities of [-ATR] vowels are indicated in brackets. The vowel only ventive and itive

affixes can also be devoiced in certain paradigms. Most of the verbal extensions can co-occur as discussed in section 7.2.

7.2 Co-occurrence of verbal derivations

Derivational morphemes can co-occur within the same verb. The instrumental is the most dominant as it co-occurs with all other derivations. The causative occurs before the verb root. This will be observed in examples where a causative co-occurs with other verb extensions. The present section aims at illustrating the co-occurrence of these operations which may have implications on the number of arguments in a clause.

7.2.1 Causatives and ventives

Causatives and ventives may extend the same verb. The resulting meaning of the extended verb is that of causing someone or something to move towards the addresser.

32. a. à-tɔ́-lɔ̀m-ʊ̀
    INF-CAUS-enter-VEN
    'to cause to enter (a speaker who is already inside)'

    b. à-tù-bùk-ù
    INF-CAUS-pour-VEN
    'to cause to pour towards the speaker'

For both (32a) and (32b), the speaker may or may not be the causer of the action of the verb. However, the action for the two verbs is directed towards the speaker. In (32a) the speaker is in an enclosed place (e.g. a house), where (s)he may take the causer role by commanding, pulling or performing an action that causes the implied being to come 'inside' towards him/her. A liquid substance is poured towards the speaker by the causer in (32b).

7.2.2 Ventives and instrumentals

Co-occurrence of the ventive and the instrumental is also possible, as an alternative to itive or dative and instrumental (as shown below). In this co-occurrence, the ventive marker precedes the instrumental extension. The resulting meaning is that of performing an action towards the addresser using an instrument.

33. a. à-ɲàk-ʊ̀n-ìà
INF-return-VEN-INST
'to return to the speaker with (an instrument)'

b. à-bùk-ù-jò
INF-pour-VEN-INST
'to pour towards the speaker (with an instrument)'

The instrumental extension **-ɪa** leads to an additional argument to the verb in (33a) where an instrument is used to return 'something' to the speaker. An instrument is introduced in (33b) by suffixing the instrumental morpheme to the verb. A glide intervenes between the ventive and instrumental marker making the later to be realized as **-jo** to avoid an 'illegal' VVV. An instrument is used to pour 'something' towards the speaker.

7.2.3 Causatives, ventives and instrumentals

The three extensions, i.e. the causative, ventive and instrumental can be added to the same verb. The causative derivational morpheme occurs at pre-verb root position while the instrumental extension occurs after the ventive morpheme in a post-verbal position.

34. a. à-tà-kám-ʊ̀n-ìà
INF-CAUS-hold-VEN-INST
'to cause to hold towards the speaker with (an instrument)'

b. à-tà-ɲàk-ʊ̀n-ìà
INF-CAUS-return-VEN-INST
'to cause to return to the speaker with (an instrument)'

An action is caused to happen towards the speaker by a causer. An instrument is involved in 'holding' or 'taking' something towards the speaker, as indicated in (34a) and (34b), respectively.

7.2.4 Causatives and itives

To express an idea of causing someone or something to move away from the addresser, a causative and itive morphemes are affixed to the same verb. The causative occurs at pre-verbal position while the itive extension is suffixed to the verb stem.

35. a. à-tʊ̀-kʊ̀ŋ-àr(ɪ)
INF-CAUS-move-IT
'to cause to move away (from the speaker)'

b. à-tʊ̀-sʊ̀kʊ̀ŋ-àr(ɪ)
INF-DER-push-IT
'to cause to push away from the speaker'

The 'move' and 'push' actions in (35a) and (35b), respectively, are caused by an external force that makes someone or something to perform an action. The final actions are directed away from the addresser.

7.2.5 Itives and instrumentals

The itive and instrumental morphemes can occur on the same verb. Just like it happens with the ventive and instrumental extension, an itive marker precedes the instrumental morpheme which occurs at the suffixial level of an extended verb.

36. a. à-càk-àr-ìà
INF-throw-IT-INST
'to throw away (from the speaker) with (an instrument)'

b. kò-kʊ̀ŋ-à-jò
IMP-move-IT:PFV-INST
'move away (from the speaker) with (an instrument)'

The action which involves the use of an instrument is directed away from the speaker, as is the case with (e.g. (36a)), where an instrument is used to move something away from the speaker. Whenever the itive is combined with instrumental marking in perfectives or imperatives, the **-a** itive marker is preferred over **-ar** as illustrated in (36b). An additional process is involved in

(36b); the glide intervenes between the resulting three vowels, taking the place of the initial vowel of the instrumental morpheme to avoid an illegal VVV structure.

7.2.6 Causatives, itives and instrumentals

Additionally, verbs with causatives and itives can further be extended to include an instrument. In this co-occurrence, the instrumental morpheme appears farthest from the verb root.

37. a. à-tù-bùk-òr-ìò
INF-CAUS-pour-IT-INST
'to cause to pour away (from the speaker) with (an instrument)'

b. à-tʊ̀-sʊ̀kʊ̀ɲ-àr-ìà
INF-CAUS-push-IT-INST
'to cause to push away (from the speaker) with (an instrument)'

The overall meaning of the extended verb is that of causing to perform an action away from the speaker. Someone is caused to to pour something away from the speaker with an instrument in (37a) while in (37b) someone is caused to 'push' something away from the speaker with an instrument. Either **-io** or **-ɪa** are used as instrumental morphemes: the morpheme **-io** is used to extend the verb 'pour' that has [+ATR] nucleus while the verb for 'push' that has [-ATR] vowels is extended by **-ɪa**.

7.2.7 Datives and instrumentals

Another morphological co-occurrence involves the dative and instrumental extensions on the simple verb. The instrumental is marked by **-io** or **-ɪa** while the morpheme **-okin** or **-akɪn** marks the dative on the same verb. The choice of either of the two dative extensions is based on the phonological conditioning that is illustrated in the section on datives above. Both the dative and the instrumental markers are suffixed to the verb stem.

38. a. é-dùk-òkìn-òì
3SG-build:PAST-DAT-INST
'(s)he built for (someone) with (an instrument)'

b. à-gòl-òkìn-òì
INF-lock-DAT-INST
'to lock for someone with (an instrument)'

c. ɛ́-màl-àkìn-ìà
3-greet:PAST-DAT- INST
'to greet for someone with (an instrument)'

The instrumental morpheme introduces an instrument into the argument structure of the verb. The instrument is used to do something or perform a function on behalf of a person. After combining the two, that is, the dative **-okin** or **-akɪn** and the instrumental **-oi** or **-ɪa** (as with examples in (38a-b) and (38c) above) in the same verb root, two more arguments are added to the verb. An instrument is used to 'built' and 'lock' something in (38a) and (38b), respectively, while the hand is used to 'greet' someone on behalf of another person in (38c). The order of the two processes is such that a dative precedes the instrumental process.

7.2.8 Causative, dative and instrumental

A causative, dative and instrumental morpheme can co-occur in the same verb. Co-occurrence of the three extensions follows the order: causative, dative and instrumental, respectively.

39. a. à-tò-mòŋ-òkìn-ìò
INF-CAUS-cry-DAT-INST
'to cause to cry for someone with (an instrument)'

b. à-tɔ̀-sɔ̀m-àkìn-ìà
INF-CAUS-work-DAT-INST
'to cause to work for someone with (an instrument)'

The last vowel of the verb root of each of the two verbs in (39) is deleted before suffixing the dative extension to the verb. The subject is the causer that applies or uses an instrument to elicit an action on behalf of a third party, for example, in (39a) the causer uses an instrument to make someone cry on his or her behalf.

7.2.9 Causative, dative and ventive/itive

The causative and the dative can co-occur in the same verb with either the ventive or itive. The co-occurrence of the causative, dative and ventive is illustrated in (40a) while that of the causative, dative and itive is shown in (40b).

40. a. à-tò-gòl-òkìn-ùn
INF-CAUS-lock-DAT-VEN
'to cause to lock for someone towards the speaker'

b. à-tɔ̀-sɔ̀m-àkìn-à
INF-CAUS-work-DAT-IT
'to cause to work for someone away from the speaker'

The overall meaning in (40a) is that of causing someone or something to perform an action (i.e. lock, e.g. a door) on behalf of someone towards the speaker. This is different from the meaning of the extended verb in (40b) where the action that is caused to be peformed for someone is done away from the speaker.

As shown above, Ateso has a large and productive set of verbal derivatives. Overall, Ateso's derived verb stem is a compound element consisting of a root and one or more derivational morphemes. There are three possible patterns of extended verb forms. The possible extensions and co-occurrence of these extensions on the same verb are listed as follows:

(i) Subject prefix/INF + (causative prefix) + verb root + (dative suffix) + (instrumental suffix)
(ii) Subject prefix/INF + (causative prefix) + verb root + (ventive suffix) + (instrumental suffix)
(iii) Subject prefix/INF + (causative prefix) + verb root + (itive suffix) + (instrumental suffix)

Extensions will lead to changes in the number of arguments of the verb as discussed in the different sub-sections above.

7.3 Conclusion

To sum up, this chapter has presented the morphology of the Ateso verb. All verbs in Ateso are made up of the root and one or more affixes. Verbs may begin with an inflectional prefix which expresses the agreement of the verb and the subject regardless of whether the subject is expressed explicitly or understood in context.

The following observations are made with regard to Ateso verbal derivations. Causatives are marked by a **tV-** morpheme prefixed to the verb while ventives are derived by **-un**, **-u**. Itives are marked by the suffixes **-ar** for [-ATR] and **-or** for [+ATR]. On the other hand, instrumentals choose between the allomorphs **-io** and **-ɪa** suffixed to the verb for [+ATR] and [-ATR], respectively. Dative allomorphs are **-okin** and **-akɪn**. The choice of one of the two dative morphemes is governed by the ATR harmony rules, **-okin** occurring with [+ATR] verb roots and **-akin** with [-ATR]. With regard to voice, Ateso has an agentless passive. The passive is marked by verb suffixes **-aɪ** and **-oi**. The choice of the passive voice marker is determined the ATR quality of the vowels in the verb root. The passive morpheme **-aɪ** is used with -ATR forms and **-oi** with +ATR. Also, the reciprocal is marked on the verb stems by the suffixes **-o** and **-a**.

Various valencies changing derivation that verbs undergo and its effect on the morphological and syntactic components of the verb are established. The discussions on valency changing derivations follow presentation of each derivational extension operations. It is noted from the analysis that there is co-occurrence of valency increasing operations in the language. There is a specific order in which this co-occurrence is ordered and explanations relating to the resulting meaning of the borne verbal structure are specified.

At the present stage, the basic components of the verb structure have been established. This will set a platform for discussion of the inflectional morphology of the verb.

Chapter Eight: Inflectional morphology of the verb

The present chapter seeks to investigate the form and function of tense, aspect and modality marking in Ateso. It looks at the distribution of tense, aspect as well as modality and its correlation with tone. Though the three concepts of tense, aspect and modality are highlighted separately in different sections, data shows that the three linguistic phenomena exist concurrently. Their separation from an analytical point of view hence could lead to incongruities; for this reason, their interaction is also discussed below whenever relevant. Aspect and mood are marked by suffixation. Tense is marked by supra-fixation of tone, and sometimes together with lexical adverbial forms when pointing at approximate time in the future. The data used for the present study further reveals that tense and aspect are marked by supra-segments and suffixes, respectively, follow the same order for all types of verb structures. The chapter subsequently presents information on the order of occurrence of modality and negation in basic structures.

Both derivational and inflectional features often occur combined in a verb. The person inflection on the verb is presented in the introductory section of chapter seven since they are focal to both derived and inflected verbs. Elaboration of derivational morphemes is not relevant to the present chapter's discussions on verbal inflections and will only be cited wherever it plays a major role on the inflected verb morphology.

8.1 Tense, aspect and mood

The three concepts of tense, aspect and mood fall under the verb inflectional forms.[40] Different scholars have defined tense and aspect (e.g. Payne 1997, Comrie 1976). The different definitions are summed up by what DeCarrico (2000: 64) put forth as "[t]ense refers to the present and past forms of verbs, and aspect refers to the internal time structure of an action, an event, or a situation". Tense and aspect thus centre on the notion of time and temporal constituency. Mood on the other hand focuses on the attitude of the speaker towards a situation. The three categories form a systematic whole.

[40] Inflectional forms refer to affixes that are attached to the root or stem forms (see e.g. Ripplinger 2002). They do not affect the semantic meaning of the verb.

8.1.1 The notion of tense in Ateso

There are several co-existing definitions of what 'tense' is, and it is not within the scope of this study to give a thorough account of this definitions. For the present discussion, it is assumed that tense is the grammatical expression of the time of action denoted by the verb. A study by Barasa (2012) investigated tense and aspect in Ateso using the Minimalist Program approach. In that study, Barasa (2012) describes Ateso as having three tenses: the past, non-past and the narrative tense. Based on the definition of tense above, 'narrative' does not denote time of the action and is thus not included as part of the tense system of the language in the present study. Instead, the analysis places what was initially established by David Barasa as the narrative tense as clause linking and it is discussed under sentence structure in chapter ten.

According to the present study, Ateso has a two-way opposition of tense, namely, the past vs. the non-past. As already seen above, the term non-past subsumes both the notion of present and that of future. Having these two, each one on its own, would be misleading in the case of Ateso as the future can be explicitly expressed by adding future time adverbials to non-past tense verb forms. The Ateso examples show that, just as it happens in many languages of the world, one verb form may express a range of different parts of the time line.[41]

This section analyses the two tense forms. Data elicited for this study shows that tone assignment in the verbal system is significant in marking tense. Identification of tone is important as one of the major concerns in this study is the placement of tone on verbal units. A sequence of high and low tones is most common with rare occurrence of falling tones at verb ends. Tone assignment, particularly the high and low tones, is predictable since they are done on the basis of tense which trigger this assignment on verbal roots. Thus, Ateso verbs have grammatical tone.

Tone operates as a supra-segmental feature on the verb root and is a mark of distinction between past and non-past tense.[42] The contrast in marking the past and non-past tense is illustrated in example (1) below.

[41] The notions that are mostly grammaticalised across the languages of the world are simple anteriority, simultaneity, and posteriority, i.e. with the present moment as deictic centre, past, present and future (Comrie 1985b: 11).

[42] The NPAST is only presented in the gloss for the discussion in this chapter. The rest of the chapters only have PAST glossed.

1. a. é-lèɟ-ì-té
   3-dance:PAST-IPFV-PL
   'they were dancing'

   b. é-léɟ-í-té
   3-dance:NPAST-IPFV-PL
   'they are dancing'

It can be observed from (1) that it is the high tone marked on the verb root **léɟ** in (1b), as opposed to the low tone on its counterpart **lèɟ** in (1a), which distinguishes between the past tense and the non-past tense. The non-past is marked by the high tone on the nucleus of the verb root **lèɟ** while the past is marked by the low tone on the vowels of the same root. The imperfective marker copies the tone of the verb root. For instance, the low tone on the verb root **lèɟ** in (1a) occurs with an imperfective morpheme that has a low tone on it. The imperfective marker (IPFV) will be discussed in detail under the section on aspect. The domain for tone affects the root and aspect markers, but not plural markers. In (1a), for example, the root **lèɟ** has a low tone while the plural marker attached to this verb root has a high tone on its peak.

To express the future, the tone of the non-past form is used, and future time adverbials may be added. There is a difference between obligatory marking of verb forms and optional lexical expression of temporal distinctions. Presumably a non-past verb form can refer to the future without adverbial if the context is right, but no verb form (at least no inflected verb form) can be unmarked for either past or non-past. In the following discussion of tense, the non-past tense will be established first before moving to the past tense.

8.1.1.1 Non-past tense

Non-past tense denotes events that are both at the reference time and the time of the speech act. As already indicated in the introductory section, Ateso marks the non-past tense with a high tone on the verb root. The similarity of the tone on the plural marker **-te** in (2c), which has a high tone on it, to that of the verb root **mɔ́ŋ** and inflectioal morpheme **-i** is coincidental since the the plural marker, unlike the imperfective morpheme, does not follow the tone of the verb root. Example (2) below illustrates this tense for class 1 verbs, while example (3) does it for class 2 verbs.

2. a. á-móŋ-í
   1SG-cry:NPAST-IPFV
   'I am crying'

   b. ká-móŋ-í-té
   1-cry:NPAST-IPFV-PL
   'we are crying'

   c. é-móŋ-í
   2SG-cry:NPAST-IPFV
   'you are crying'

   d. é-móŋ-í-té mòí
   3-cry:NPAST-IPFV-PL tomorrow
   'they will be crying tomorrow'

Examples (2a-c) illustrate the expression of non-past and (2d) that of future. The non-past is expressed by the high tone on the root **mɔ́ŋ**. For expression of the future an adverbial form **mòí** 'tomorrow', follows the non-past verb, as with (2d). When the imperfective marker **-i** and the plural morpheme **-te** are expressed on the same verb, the imperfective marker precedes the plural morpheme (see e.g. (2b) and (2d) where the imperfective marker comes after the verb root **mɔ́ŋ** and it is in turn followed by the plural marker). Class 2 verbs will appear as follows:

3. a. é-gír-í
   1SG.write:NPAST-IPFV
   'I am writing'

   b. kí-gír-í-té
   1-write:NPAST-IPFV-PL
   'we will be writing '

   c. í-gír-í
   2SG-write:NPAST-IPFV
   'you will be writing'

d. í-gír-í-té ébòŋ
3-write:NPAST-IPFV-PL evening
'they will be writing in the evening'

The non-past form is marked on the verb root **gír**. Just as with class 1 verbs, the imperfective morpheme copies the high tone of the verb root. The lexical form **ébòŋ** in (3d) following the verb **í.gír-í-té** indicates the future. This shows that the future time reference is encoded by both non-past tone and adverbials to describe actions or events yet to occur.

Auxiliaries may also be marked with supra-segmental tone for tense and they can occur with future time adverbials to indicate future tense. These auxiliaries tend to occur separately from the main verb: they occur in a fixed order at clause-initial position and always precede the main verbs. They also have morphological elements for subject and number.

4. a. á-bútó á-pér-í èbòŋ
1SG-aux 1SG-sleep-IPFV evening
'I will be sleeping in the evening'

b. é-bútí é-pér-í èbòŋ
2SG-aux 2SG-sleep-IPFV evening
'you will be sleeping in the evening'

c. é-bútó é-pér-í-té mòí
3-AUX 3-sleep-IPFV-PL tomorrow
'they will be sleeping tomorrow'

d. é-bútí é-kérít-í mòí
3-AUX 3SG-run-IPFV tomorrow
'(s)he will be running tomorrow'

e. é-bútí é-kérít-í-té èkàrú ŋòlò
3-AUX 3-run-IPFV-PL next year
'they will be running next year'

The auxiliary **á-bútó** is used with the first person singular prefixed to it. On the other hand, **é-bútí** is used with all the other persons where the prefix **e-** represents the other persons.

8.1.1.2 Past tense

The past tense is used to express events in the past. The implication of the Ateso past tense is that, at the time of speaking, the action has come to fulfilment. The past tense is marked with a low tone on the verb root. The low tone does not affect the tone marker on the person morpheme in the verb. Examples (5a-d) show the past tense in class 1 verbs while (5e-g) is that for class 2 verbs.

5. a. á-mòŋ-ì
   1SG-cry:PAST-IPFV
   'I was crying'

   b. ká-mòŋ-ì-té
   1-cry:PAST-IPFV-PL
   'we were crying'

   c. é-mòŋ-ì
   2SG-cry:PAST-IPFV
   'you were crying'

   d. é-mòŋ-ì-té tùpùrùcu
   3-cry:PAST-IPFV-PL morning
   'they were crying in the morning'

   e. é-gìr-ì
   1SG.write:PAST
   'I was writing'

   f. kí-gìr-ì-té
   1-write:PAST-IPFV-PL
   'we were writing'

   g. í-gìr-ì
   2SG-write:PAST-IPFV
   'you were writing'

h. í-gìr-ì-té
   3-write:PAST-IPFV-PL
   'they were writing'

To show that tone is not lexical, the same verbs used for non-past forms in (2) and (3) above are used in the illustration of past examples (5a-f). The low tone marked on the verb root **mɔ̀ŋ** and **gìr** is purely grammatical. The tone on the verb root is always sufficient to indicate past tense; adverbials are only used to specify which time of the past, as with **tùpùrùcû** in (5d) which indicates morning hours. The low tone on the verb root as observed above does not affect the tone on the person marker. For example, the first person marker **á** in **á-mòŋ-ì** has a high tone as opposed to the low tone on the verb root and the high tone on the imperfective morpheme. To summarise the discussion so far, Table (8.1) below provides a sketch of tense marking.

Table 8.1: Sketch of tense marking

Tense	**Marking**
Non-past	´(high tone) on the verb root
Past	`(low tone) on the verb root

Tone expressed on the verb root spreads to the aspect marker. In (2), for example, the verb root and the imperfective suffix have a high tone for non-past tense. In the past tense, tone spread does not occur as the person marker and plural marker retain their high tone as illustrated (5b-c) above. The actions expressed by the non-past and past tenses on the verb root are bound by time.

8.1.2 Aspect marking

This section will deal with the analysis of aspect. According to Comrie (1976: 11), the reference point for tense is the present moment; making it deictic. On the other hand, aspect focuses on the internal temporal constituency of a situation and is independent of its relation to any other time point; making it non-deictic.

According to Bybee (1985), aspect is more prominent as compared to tense in many languages of the world. Bybee (1985: 33-35) finds that 74% of the languages in her random sample have morphological manifestation of aspect in the verb. Mood is the third most common inflection,

occurring in 68% of the languages.[43] Tense is the 7th occurring in only fifty percent of the languages surveyed.

Most African languages pay more attention to aspect as compared to tense. Other non-African languages like English possess similar characteristics. English has non-past and past tense; the so-called future is largely modal and most other inflections are mixtures of tense and aspect. Dholuo, a member of the Western Nilotic group, for example does not have tense but realises aspect (cf. Okombo 1982, Omondi 1983).

Aspect relates to the grammatical viewpoints such as perfective and imperfective. Comrie (1976: 3) describes aspect as the different ways of viewing the internal temporal constituency of a situation. This can be viewed in the present, past or future time.

In Ateso, aspect is marked by suffixes showing the aspectual phases of events that the verbs express. Morphological markers for aspect carry the tone of tense that is marked on the verb root. Aspect marking is not used with stative verbs.

Ateso distinguishes between the following aspects: imperfective, habitual, perfective and perfect aspect. The three aspectual forms will be discussed and distinctions on its occurrence with the past and the non-past tense illustrated in this section.

8.1.2.1 Imperfective aspect

The imperfective aspect is used to indicate an on-going activity or state. Comrie (1976: 16) notes that the imperfective aspect pays essential attention to the internal structure of a situation. It essentially serves to indicate the perspective taken by the speaker in the middle of a situation and has no reference to the end point. The aspect indicates a gradual process that takes some time to complete or is not yet complete. Imperfective aspect is marked on the verb stem by the suffix **-i** and other allomorphs that are conditioned by various derivational morphemes.

Imperfective past forms present an on-going process that took place and continued within an unspecified time in the past. It is marked by the suffix **-ì**, with the low tone on the verb root and the imperfective morpheme **-ì** marking the past tense. This is exemplified by example (6) in the case of class 1 verbs and by example (7) in the case of class 2 verbs.

[43] According to Bybee's proposal, in the universal ordering of verbal inflections, tense inflections occur closer to the stem than mood markers. The components of mood inflection include both epistemic modal and evidential inflections.

6. a. á-mòŋ-ì
   1SG-cry:PAST-IPFV
   'I was crying'

   b. é-mòŋ-ì
   2SG-cry:PAST-IPFV
   'you were crying'

   c. é-mòŋ-ì-té
   3-cry:PAST-IPFV-PL
   'they were crying'

7. a. é-lèɟ-ì
   1SG-dance:PAST-IPFV
   'I was dancing'

   b. í-lèɟ-ì
   2SG-dance:PAST-IPFV
   'you were dancing'

   c. í-lèɟ-ì-té
   3-dance:PAST-IPFV-PL
   'they were dancing'

One more observation about tone marking in the imperfective past is that the low tone does not spread across the verb but is restricted to the verb root and the imperfective morpheme. The plural morpheme can be marked with a separate tone, as can be seen in (7c) where the root has a low tone and the plural marker a high tone.

There is just one form for imperfective non-past. Further detailed distinctions for future can be expressed by adverbials. Imperfective non-past indicates an on-going process in the present moment within which an utterance is made. It is marked by the suffix **-í**, with a high tone placed on it, similar to that tone placed on the verb root, marking non-past tense. In the plural, the suffix **-í** is followed by the plural marker **-te**. Example (8) illustrates the case of class 1 verbs, while example (9) illustrates that of class 2 verbs.

8. a. á-móŋ-í
   1SG-cry:NPAST-IPFV
   'I am crying'

   b. é-móŋ-í
   2SG-cry:NPAST-IPFV
   'you are crying'

   c. é-móŋ-í-té
   3-cry:NPAST-IPFV-PL
   'they are crying'

9. a. é-léɟ-í
   1SG-dance:NPAST-IPFV
   'I was dancing'

   b. í-léɟ-í
   3SG-dance:NPAST-IPFV
   '(s)he is dancing'

   b. í-léɟ-í-té
   3-dance:NPAST-IPFV-PL
   'they are dancing'

The imperfective marker **-i** combines with past and non-past tenses resulting in either a low tone or a high tone, **-ì** and **-í**, respectively, a tone that also applies to the verb root. The marker occurs in [+ATR] forms only since it has a dominant ATR quality that also influences the quality of the verb root nucleus to become [+ATR]. The verb root mɔ̀ŋ has a [-ATR] which changes to [+ATR] once an imperfective suffix is affixed to it.

If the imperfective is used in the future, the non-past form of the verb occurs but for clarification, the verb in the non-past needs assistance of adverbials indicating the future time dimension. It follows from the description of the non-past tense above that the imperfective non-past indicating the future expresses possibilities of events or changes of state happening after the present moment. To mark the imperfective future, the high tone on the verb root and the **-í**

morpheme marking the imperfective non-past is used together with future time adverbials. Specific time in the future can be inferred by lexical forms such as **mòí** ‘tomorrow’, **élápâ ŋóló** ‘next month’ or **ékárû ŋóló** ‘next year’. Examples in (10) illustrate the case of class 1 verbs, while examples in (11) illustrate that of class 2 verbs.

10. a. á-ɲám-í mòí
1SG-eat:NPAST-IPFV tomorrow
‘I will be eating tomorrow’

b. é-ɲám-í mòí
2SG-eat:NPAST-IPFV tomorrow
‘you will be eating tomorrow’

c. é-ɲám-í ékárû ŋòlò
3SG-eat:NPAST-IPFV year that
‘(s)he will be eating next year’

d. é-ɲám-í-tè mòí
3-eat-NPAST-IPFV-PL tomorrow
‘they will be eating tomorrow’

11. a. é-líp-í ékárû ŋòlò
1SG-pray:NPAST-IPFV year next
‘I will be praying next year’

b. í-líp-í-té mòí
2PL-pray:NPAST-IPFV-PL tomorrow
‘you will be praying tomorrow’

c. í-líp-í ɛ́bɔ́ŋ
3-pray:NPAST-IPFV evening
‘(s)he will be praying in the evening’

d. í-líp-í-té mòí
3-pray:NPAST-IPFV-PL tomorrow
'they will be praying tomorrow'

Time adverbials are not affected by the verb tone. Adverbials have tone marking that may or may not be similar to that of the verb since they are not marked for tense. Whereas the verb **áŋámí** in (10a) has a HH tone, the adverbial mòí has a LH tone. On the other hand, the verb **í-líp-í** has HHH tone similar to the tone of the adverbial **ɛ́bɔ́ŋ** which has HH. The adverbials have a lexical tone pattern of their own.

8.1.2.2 The habitual aspect

Inflected forms for habitual indicate a regular occurrence of a situation in the past or non-past. The action described remains the same over an extended period of time. Habitual forms are marked by the morpheme **-enen**, always followed by imperfective aspect marking. The difference between the habitual non-past and the habitual past is marked by the difference in tone on the verb root: the past is marked by a low tone while the non-past is marked by a high tone on the verb root plus the habitual extension. The two examples in (12) illustrate the habitual aspect with non-past verb forms while (13) expresses regular action in the past.

12. a. é-dúk-énén-é ètògóì
3SG-build-HAB-IPFV house:ABS
'(s)he builds a house'

b. é-púp-énén-é-té áràmá
3-listen-HAB-IPFV-PL music:ABS
'they listen to music'

Habitual forms in the past tense indicate situations that took place in the past regularly. This inflectional form is marked by the grammatical morpheme **-ènèn** carrying a low tone on its two component syllables that is similar to the tone of the verb root. In the examples below, the verb roots **lòs** and **ŋàl** have a low tone for past tense which is copied to the habitual morpheme **-ènèn.**

13. a. á-lòs-ènèn-è ínàgáì ékárû ɟé
1SG-wash:PAST-HAB-IPFV clothes:ABS year last
'I used to wash clothes last year'

b. é-ŋàl-ènèn-è-té ékárû ɟé
3-cheat:PAST-HAB-IPFV-PL year last
'they used to cheat him last year'

The rest of the lexical affixes in the verb, i.e. the person marker and the plural morpheme are not affected by the tone on the verb root and the habitual extension.

Habituals can be used together with lexical items expressing repetition so as to stress and focus the idea of doing something habitually. For instance, the adverbial form **ŋínì pákî**, in example (14) is used together with the habitual for stress and focus on the 'cleaning' action.

14. é-lós-énén-é ètógó ŋínì pákî
3SG-clean-HAB-IPFV house/ABS repeatedly
'(s)he cleans the house (habitually/repeatedly)'

There are instances where the habitual marker **-enen** follows a root that ends with a vowel, as in (15a) below. The first vowel **e-** of the habitual form is deleted when it is suffixed to such a verb like **é-rjàmàkì** which ends with the vowel **i**. The form in (15a) will thus appear as **-nèn** instead of **-ènèn** when it is suffixed to the verb root The vowel quality of the imperfective marker causes the ATR of the root and its other affixes to be [+ATR]. Consider the following examples.

15. a. é-rjàmàk-ènèn-è-tè kà nèsí
3-meet-HAB-IPFV-PL with him/her
'they used to meet him/her (habitually)'

b. é-mòŋ-ènèn-è
3SG-cry-HAB-IPFV
'(s)he used to cry (habitually)'

The [-ATR] vowels both in the verb prefix and the root in (15b) changes to [+ATR] as influenced by the dominant quality of the IPFV suffix. For (15a), the vowel root quality does not change as it is already [+ATR].

Furthermore, the presence of habitual suffixes leads to an additional allomorph for the IPFV. The additional allomorph **-e** for the IPFV is conditioned by inflectional markers like the habitual **-enen** or the itive and ventive markers (see chapter on phonology).

16. a. é-dúk-énén-é
    3SG-build-HAB-IPFV
    '(s)he builds (habitually)'

    b. á-lòs-ènèn-è
    1SG-wash:PAST-HAB-IPFV
    'I used to wash (habitually)'

    c. í-kòkò-àr-è
    2SG-steal-IT-IPFV
    'you were stealing from (habitually)'

    d. è-jà-ún-é-té
    2PL-bring-VEN-IPFV-PL
    'you brought to the speaker (habitually)'

The imperfective morpheme occurs in the form **-e** in (16a-b) as conditioned by a habitual extension. The same applies to the imperfective morpheme in (16c) and (16d) which are preceded and conditioned by the itive and ventive markers, **-ar** and **-un**, respectively.

Overall, the tones of **-enen** are simply a reflex of the tone of the verb/tense; **-enen** by itself is toneless. In other words, there is one habitual marker which combines with past and non-past verbs, and its tone adapts to the verb/tense tonal pattern.

8.1.2.3 Perfective aspect

The perfective is used to indicate an action that is complete. It shows completed activities that occur in the past in reference to the time of utterance. Perfectives view situations or events as a

whole and not as distinct parts. And as Payne (1997: 239) puts it, the situation is viewed in its entirety independent of tense. In Ateso, the perfective is marked by the suffix **-ìt**. The suffix combines with past-tense of the verb root as indicated by the low tone on it. Example (17) illustrates this for class 1 verbs, while example (18) does so for class 2 verbs.

17. a. á-mòŋ-ìt
    1SG-cry:PAST-PFV
    'I cried'

    b. é-mòŋ-ìt
    2SG-cry:PAST-PFV
    'you cried'

    c. é-mòŋ-ìt-(t)é djàní
    3-cry:PAST-PFV-PL yesterday
    'they cried yesterday'

18. a. é-lìp-ìt
    1SG-pray:PAST-PFV
    'I prayed'

    b. í-lìp-ìt
    3-pray:PAST-PFV
    '(s)he prayed'

    c. í-lìp-ìt-(t)é djàní
    3-pray:PAST-PFV-PL yesterday
    'they prayed yesterday'

Personal markers prefixed to the verb retain their high tone. Also, the time adverbials (e.g. in 17c and 18c) retain their individual tone LH tone. The low tone of the verb roots in both (17) and (18) which is copied to the perfective aspect indicates time in the past. The (t) presented here in brackets gets deleted when the plural marking occurs together with the perfective marker, since Ateso does not have geminate consonants.

8.1.2.4 Perfect aspect

There is a "blurred" difference between the perfect aspect and the perfective one. Basically, Ateso's perfect aspect is used to denote states of events that were completed in the past without specifying time. It illustrates that there are some aspects of the completed action that influence the present stage. The resultant effect is what is conceptualised by the perfect aspect.

The perfect aspect is marked by the prefix **a-**, a morphological marker which overrides all the person markers. However, this aspect has tonal configurations on the verb root peaks for tense. Ateso has a non-past and past form for perfect, see below the forms for the non-past perfect (a full paradigm of the perfect forms for class 1 and class 2 verbs is given in Appendix 6).

19. a. á-gírí èòŋ
    PRF-write:NPAST 1SG/NOM
    'I have written'

    b. á-gírí ìjò
    PRF-write:NPAST 2SG/NOM
    'you have written'

    c. á-gírí nèsì
    PRF-write:NPAST 3SG/NOM
    '(s)he has written'

    d. á-rʊ́kʊ́ kèsì
    PRF-sing:NPAST 3PL/NOM
    'They have sung'

The **a-** prefixed to the verb roots **gír(í)** in (19a-c) and **rʊ́k(ʊ́)** in (19d) is used to denote the perfect aspect. The perfect aspect indicates that an event has been accomplished; wherefore, the event is relevant to the present conceptual situation. For example, the act of 'writing' has been accomplished in (19a) by the subject, 1SG. Note that even without an adverb of time following the verb root, tense is marked by the high tone on the two verb roots for non-past tense. The independent person markers are used to establish the different persons whenever the context does not offer clear referents.

In the perfect past, the root and the subject markers are maintained, except for the tonal configuration for the past, where the tone on the verb changes to a low tone. Also, a lexical form for specific time in the past may be added.

20. a. á-gìrì èòŋ
PRF-write:PAST 1PL/NOM
'I had written'

b. á-gìrì ìjò
PRF-write:PAST 2SG/NOM
'you had written'

c. á-gìrì nèsì
PRF-write:PAST 3SG/NOM
'(s)he had written'

d. á-rʊ̀kʊ̀ kèsì èlàpâ ɟé
PRF-sing:PAST 3PL/NOM month last
'they had sung last month'

The PRF prefixed to verb roots **gìr** and **rʊ̀kʊ̀** with low tone for past tense indicate a finished action before an adjacent situation. Lexical forms such as **èlàpâ jé** 'last month' in (20d) may be added to indicate the specific time in the past.

The observation with regard to aspect is summmarised in Table (8.2) below:

Table 8.2: Illustration of aspect marking

Aspect	**Tone**	**Marking**
Imperfective past	L	-ì, -è
non-past	H	-í, -é
Perfective	L	-ìt, -èt
Perfect past	L	à-
non-past	H	á-
Habitual	-	-enen

The forms in Table (8.2) above illustrate the following: both the imperfective past and non-past are marked by the morphemes **-i** or **-e**. The difference in tone depends on whether they are suffixed to verbs in the past or non-past verbs. They are marked with high tone when they occur with verbs in non-past tense or with low tone with verbs that have past tense tone marking. The aspectual markers **-it** and **-et** are for perfective while the perfect is marked by the prefix **a-**.

8.1.3 Mood

Mood refers to a range of grammatical distinctions that generally mark the attitude of the speaker. According to Palmer (1994), mood presents the different shades between realis and irrealis. Pence & Emery (1963: 256) indicate that mood is that property of a verb which indicates how the verbal idea is to be regarded – whether as a statement of fact, a command, a supposition, a doubt, or impossibility. The three types of mood in Ateso are the subjunctive, the imperative and the conditionals.

8.1.3.1 The subjunctive and the imperative

Ateso's subjunctive indicates the speaker's strong expression of wish that is difficult to reject. It is marked by the prefix **ki-** attached to the verb stem.

21. a. á-lìmokì èbè kí-pálíkí-sí
    1SG-tell:PAST that SUB-stop-PL
    'I was told that we should stop'

    b. é-ísíít èbè kí-tácá-tá
    3SG-feel that SUB-pay-PL
    '(s)he feels that they should pay'

The subjects in the subjunctive forms are expressed by the inflectional personal prefixes on the first verb.

On the other hand, imperatives are used to give commands by stating the desired action that is to be performed by the addressee. Imperatives provoke a reaction from the interlocutor. To express an imperative meaning or a command, the imperative morphemes **ki-** and **ko-** are prefixed to the verb. Roots with front vowels **i** and **e** takes **ki-** while verbs with back vowels in their roots take

ko-. The resulting forms only occur as single verbs with imperative markers attached to them. Consider the following examples:

22. a. kò-kóté
IMP-find
'Find!'

b. kò-bún
IMP-come
'Come!'

c. kì-bíl
IMP-break
'Break!'

d. kì-ɲék
IMP-stop
'Stop!'

e. kì-lípí
IMP-pray
'Pray!'

Here the independent pronouns are omitted just like in the subjunctive forms in (21). Only the **ko-** corresponds to the imperative structures. The verbs with the front vowels in their nucleus take ki- while those with back vowels in their roots take ko-. Supra-segmentally, the imperative verb roots have a high tone on the root. They dominantly occur in single inflected verb units, as the subjects are only inferred. All imperatives have subjects, either non-overt or overtly expressed. Overt subjects can be added to the singulars as a way of singling the addressee out from a group. These subjects are placed before the imperative form as illustrated in (23).

23. a. ósì, kò-túbó-tó!
2PL IMP-cut-PL
'You, cut!'

b. ósìlù kò-lómá-sí kòtógó
2PL IMP-enter-PL house
'you, people enter the house'

c. ísàpà kò-búné-té nè
boy/PL IMP-come-PL here
'boys, come here!'

d. àpèsùrù, kò-gwáá-tá
girl/PL IMP-stand-PL
'girls, stand'

Allomorphs for plural marking **(-to**, **-si**, **-te**, **-ta**) are expressed on the verbs which also occur with plural subjects. The subject NP, appearing pre-verbally for focus takes absolute case.

8.1.3.2 The conditional mood

The conditional mood indicates uncertainty, that is, it expresses an unexpected or unlikely consequence. It is marked by the conditional morpheme **ko-** with a high tone (which is different from the consecutive marker which always carries a low tone) prefixed to the first verb in a sentence. Consider the following example.

24. kó-ɟàsì k=èkítàbó tʊ́n è-sómá-í kwárê
COND-have PREP=book then 1SG-read-IPFV night
'if I had a book then I would be reading it at night'

In sentence (24) there is little doubt regarding the actualization of the action expressed by the verb even though the agent is not overtly expressed. The first verb **kó-ɟàsì** in the periphrastic structure carries a conditional marker while the second verb **è-sómá-í** occurs with an inflection personal marker.

8.1.4 Conclusion

Inflected verbal complexes consist of subject/number morphemes, verbal stems, aspect morphemes and tense, marked supra-segmentally. Most verbs thus have prefixes, suffixes or both.

This study subdivides Ateso tense into past and non-past. The distinction between past and non-past tense is made only by tone. The past tense is marked by a low tone on the verb root whereas the non-past tense in contrast is expressed by a high tone on the verb root. The distribution of high and low tones for these tenses applies to both class 1 and class 2 verbs. Aspect has a wider range of notions, namely: imperfective, habitual, perfective and perfect. Each of these can be used in the non-past tense or the past. The imperfective is marked by **-i** and a range of other allomorphs such as **-e** as conditioned by the habitual, itive and ventive markers; **-enen** is the morpheme for habitual. The perfective aspect is marked by the suffix **ìt-** while the perfect aspect is marked by the prefix **a-**, both attached to the verb. Mood (i.e. the subjunctive, the imperative and the conditional) are marked by different morphemes prefixed to the verb stem. The subjunctive is indicated by the prefix **ki-** marked on the verb while the imperative is marked by the morphemes **ko-** and **ki-**. The conditionals are marked by **ko-** with a high tone on it. The different modalities undergo negation by addition of a negation word **màm(ʊ̀)** which occurs at pre-verbal position.

In general, discussions on the verb morphology have highlighted some constituents, i.e. the N and the pronoun, which occupy the subject and object slots. Constituents occupying the two argument positions have different case. To complete the discussion on the components occupying the argument position, an analysis of case marking needs to be done. Therefore, the focus of the next chapter is case marking.

Chapter Nine: Case marking

This chapter will show the case marking system in Ateso. In many languages, case marking relates to the syntactic relationship between the verb and its subject or object. According to Dixon (1994: 42), case in the world's languages is divided into two main systems: ergative-absolutive or nominative-accusative. In Ateso, there are several possibilities with regard to case marking that may not be dependent on the position of the subject or object in clauses. Instead, as evidenced in the discussion in the present chapter, case marking in Ateso is done by tone. Ateso's nouns as well as independent pronouns are affected by case marking. Nouns occur in all cases whereas pronouns occur in all cases except the instrumental case.

The chapter contends that Ateso has a marked nominative case system. Besides, the chapter discusses split alignment; and the genitive, the locative and the instrumental case.

9.1 Marked nominative case

Ateso has a marked nominative case system, a phenomenon highlighted by Dimmendaal (2014) for Eastern Sudanic branch of the Nilo-Saharan family. At the first glance the S of the intransitive and the A of the transitive clause have the same tonal marking. Consider the following:

1. a. é-móŋ-í àbɛ̀rʊ̀
   3SG-cry-IPFV woman/NOM
   'the woman was crying'

   b. é-kwènà nèsì
   3-laugh:PAST 3SG/NOM
   '(s)he laughed'

   c. ɛ́-míná àbɛ̀rʊ̀ èkíljòkít
   3-loves woman/NOM man/SG
   'the woman loves the man'

   d. ɛ́-míná nèsì èkíljòkít
   3-loves 3SG/NOM man/SG
   '(s)he loves the man'

The ‘woman’ and the independent ‘3SG’ pronoun as the S of intransitive clauses in (1a-b) and the ‘woman’ and 3SG as the A of transitive clauses in (1c) and (1d), respectively, have the same tone namely, LLL and LL. This shows that the S subject is marked as nominative in the intransitive clause and the A subject is marked the same way. Compare this with example (2) below where ‘woman’ and the independent 3SG pronoun occur in the object position.

2. a. ɛ́-míná èkìljòkìt àbɛ́rʊ̀
   3-loves man/NOM woman/SG/ABS
   ‘the man loves the woman’

   b. ɛ́-míná èkìljòkìt nésì
   3-loves man/NOM 3SG/ABS
   ‘(s)he loves the woman’

The ‘woman’ and the ‘3SG’ in the S positions of the intransitive clauses have LLL and LL tone pattern, respectively, and the A of the transitive clauses have LLL and LL tone pattern.[44] On the other hand, the ‘woman’ and the independent ‘3SG’ pronoun in the object positions are marked LHL and HL, respectively. These markings show a nominative-accusative system where the S and A are marked the same way but O is treated differently, as shown below.

3. Nominative-accusative
   ⌟A
   O
   S

Why then is Ateso a marked nominative system? In isolation, the tone pattern of the noun for ‘woman’ and the independent ‘3SG’ pronoun will be as follows:

4. a. àbɛ́rʊ̀ ‘woman’
   LHL
   b. nésì ‘3SG’
   HL

[44] Low tones are the most dominant for the nominative forms in the examples cited in this discussion, but it should be kept in mind that there are various exceptions; consequently, the nominative does not occur in one simple rule of low tone insertion or spreading.

When the nouns occur in isolation, their tone patterns show a different tone marking from that of the A or the S. The tone on 'woman' in (4a) and that on independent '3SG' pronoun in (4b) are similar to the tone marking of the objects, that is, LHL and HL, respectively.

Further, subjects may occur before verbs in negated forms, among other contexts. The structure of the negated construction would then be noted as: NEG + subject (with absolute tone) + main verb (+ the object, also marked absolute). The subjects in the affirmative clauses in (5a) and (5b) below changes tone from LLL and LL to LHL and HL, respectively, when they are moved at preverb positions in the negated forms in (5c) and (5d) and that demonstrates the absolute marking of the object.

5. a. ɛ́-ɲàm àbɛ̀rʊ̀ épùùsì
   3SG-eat:PAST woman/NOM cat/ABS
   'the woman ate the cat'

   b. ɛ́-ɲàm nésì épùùsì
   3SG-eat:PAST 3SG/NOM cat/ABS
   '(s)he ate the cat'

   c. mámʊ́ àbɛ́rʊ̀ à-ɲàm épùùs(ì)
   NEG woman/ABS INF-eat cat/ABS
   'the woman did not eat the cat'

   d. mámʊ́ nésì à-ɲàm épùùs(ì)
   NEG 3SG/ABS INF-eat cat/ABS
   '(s)he did not eat the cat'

From the evidence, above, where words in isolation are marked with the accusative object marking where they occur in the unmarked position, Ateso is a marked nominative language, because the S subject of the intransitive clause and the A subject of the transitive clause are marked, while the object is unmarked. The marked nominative is a hybrid between the ergative-absolutive and the nominative-accusative. It is established when at least two cases are distinguished, namely an accusative covering O, and a nominative covering S and A (Koenig, 2006: 658). And as pointed out further by Koenig, the accusative must be the functionally

unmarked form; the case with the widest range of functions, as discussed below.

The occurrence of the marked nominative case system is not only confined to Nilotic languages of the Eastern branch but also occurs in other groups within the Southern and Western Nilotic branches (as cited by Tucker & Bryan 1966: 467).[45] In the ergative-absolutive and the marked nominative, the object is the unmarked form; and that is why the object in this case will not be called accusative but absolute. Dimmendaal mentions the following properties for the unmarked absolute marking:

> "(1) because in this form these categories have their widest range of occurrence, (2) because in the absolutive case maximal tonal differentiation occurs, whereby tone pattern is not predictable, and finally (3) because the tonal forms of the categories in question when occurring in other cases can be predicted or derived from the corresponding forms in the absolutive case."
>
> (Dimmendaal 1983a: 66)

Out of the three properties, (1) applies most to Ateso. As illustrated above, the absolute tone has the widest range of occurrence. It occurs at preverbal subject position, or with object nouns or pronouns, and for nouns cited in isolation.

There is an additional "complication" to the marked nominative system: certain verbs with only one argument look like intransitive verbs, and are, therefore, expected to take nominative case. Yet, they do not. Instead, the syntactic argument takes absolute case as illustrated in the following section.

9.2 Split alignment

As already mentioned, Ateso has a marked-nominative case system, i.e. the subject of a transitive and intransitive predication is marked for case, whenever it follows the verb (whereas the object is inflected for absolue case). In addition, Ateso (like other Eastern Nilotic languages) manifests split alignment, i.e. with specific verbs (usually expressing non-volitionality, the only argument of the predicate takes absolute, rather than nominative, case).

[45] The Southern branch consists of Daju, Temeinian, Surmic and Nilotic.

The morphosyntactic evidence for the claim that this argument of a monovalent verb (expressing the S-role) in Ateso is sometimes treated as an O is twofold: First, this argument in the predication takes absolute case, rather than nominative case, when it occurs in post-verbal position.

6. a. kí-cék-í àbɛ́rʊ̀
   3SG-tremble-IPFV woman/ABS
   'the woman is trembling'

   b. kà-ɲìŋìr-ìt èkíljôkìt
   3SG-sweat-PFV man/ABS
   'the man sweated'

The second argument comes from the hierarchical person marking system (discussed in section 5.2.2). When the only argument in such predications is a first or second person, the cross-reference marking on the verb is identical to the object, as in examples (6a, 6b) above.

7. a. kí-rjáŋút-ì éòŋ
   3>1-surprise-IPFV 1SG/ABS
   'I am surprised (lit. it surprises me)'

   b. ká-sílíkín-ít éòŋ
   3>1-shame-PFV 1SG/ABS
   'I am ashamed (lit. it ashames me)'

The same marker **ka-** (or **ki.**, with class 2 verbs) occurs with transitive predications where a syntactic subject may occur that however is marked syntactically as object, as in:

8. a. kí-pòs-ì éòŋ
   3>1-beat-IPFV 1SG/ABS
   '(s)he beat me'

   b. ká-ìn-àkìn-ìt è-sàpàt éòŋ
   3>1-give-DAT-PFV M-boy/NOM 1SG/ABS
   'The boy gave it to me'

The difference between the two constructions is the fact that in example (8b) there is a formal subject, whereas in example (8a) there is not, i.e. the syntactic subject overt position is empty. Hence, Ateso has a split alignment based on the kind of verb (rather than tense-aspect or some other parameter, as found in languages with Fluid-S systems).

9.3 The genitive case

In Ateso, the genitive case is formed by tone, marked on the possessor N. The possessor N is embedded within a larger matrix NP headed by the possessed N. The possessor N follows the possessed, appearing on the right of the nominative N, and occurs with a genitive tone on its stem. The prepositional marker **ka** links the possessed with the possessor proper names that start with a consonant. In the following example, Letiʃa would have a tone pattern HLL in the absolute form, but LLL in the genitive case.

9. è-kítàbò kà Lètìʃà
   D-book/SG PREP Letiʃa/GEN
   'Letisha's book'

For proper nouns beginning with a vowel, a clitic prepositional marker **k=** is prefixed to the possessor noun as illustrated in (10c) below. This combination of prepositional marker plus a noun inflected for genitive case by way of tone is more common in Eastern Nilotic, for example in a language closely related to Bari, Kuku, as described by Cohen (2000). Compare the tone marking on the possessor N in (10c) to the same form with absolute and nominative marking in (10a) and (10b), respectively.

10. a. àbɛ́rʊ̀
       woman/ABS

    b. àbɛ̀rʊ̀
       woman/NOM

    c. í-kókù k=ábɛ̀rʊ̀
       D-child/SG PREP=woman/GEN
       'the woman's child'

The possessor genitive N in (10c) has a clitic prepositional marker k= and distinct tone marking for genitive which is HLL. Example (9) versus (10c) provides evidence that the **ka-/k=** alternation is phonologically conditioned and thus that it is phonologically bound; in (9) the possessor noun starts with a consonant. This is in contrast with (10c) where the linker **k=** is latched onto the apossesser noun with an initial vowel. In the absolute 'woman' has LHL, nominative LLL (see examples (10a) and (10b), respectively), and in the genitive, it has the HLL tone pattern.

The prepositions prefixed to the N are subject to vowel fusion and vowel deletion. This leads to an internal change in the noun where also the tones of the nominal stem change with the genitive just like with the nominative. The second N in the genitive phrase shows an overt kinship relationship between the possessed entity and the possessor component. Consider the following examples with the genitive tone marking on the possessor N in (11c-d) as opposed to the same N in the absolute form in (11a-b); see also Table (9.1) below for their nominative counterpart.

11. a. é-tògó
D-house/ABS
'house'

b. í-tògó-í
D-house-PL/ABS
'houses'

c. à-kàcìt k=ètògò
F-roof PREP=house/GEN
'the roof of the house'

d. à-kàcìt k=ìtògò-í
F-roof PREP-house-PL/GEN
'the houses' roof'

In the constructions in (11c), **à-kàcìt** 'roof' is the possessed (nomen rectum) and the possessor (nomen regens) is **k=ètògò**. The clitic **k=**, is linked to the possessor N, **è-tògò** 'house' by a clitic boundary. The morphophonological form **ka=e-togo** is thus phonologically realised as **k=è-tògò**.

In plural form, the clitic fuses with the morpheme associated with the plural marker on the possessor N.

Table 9.1 below gives some examples with nouns in their absolute and nominative forms and their genitive counterparts. It illustrates the changed tone pattern on the possessor N when it occurs in the genitive case frame.

Table 9.1: Comparison of the absolute, nominative and genitive forms

Absolute	**Nominative**	**Genitive**
a. è-kíljòkít 'man'	è-kìljòkìt 'man'	k=èkíljòkít 'PREP=man/GEN'
b. é-tògó 'house'	é-tógò 'house/SG'	k=étògò 'PREP=house/GEN'
c. í-tògóí 'house'	í-tògòì 'house/PL'	k=ítògòí 'PREP=house/GEN'
d. à-bɛ́rʊ̀ 'woman'	à-bɛ̀rʊ̀ 'woman'	k=ábɛ̀rʊ̀ 'PREP=woman/GEN'

In summary, a genitive construction occurs in the order where the possessed is followed by a linking particle **ka** which in turn is followed by the possessor noun when the possessor is a proper noun beginning with a consonant. If the possessor begins with a vowel, it is preceded by a prepositional marker/clitic **k=** that is prefixed to it. Looking at the last two examples, genitive marking is not just a simple lowering of tone and thus further research on the topic is recommended.

9.4 The locative case

Locationals are usually full segments or prefix morphemes that provide specific information about location. The locations can be expressed in both horizontal and vertical positions. Nouns in the locative case are introduced by a preposition **ka**, which procliticizes onto the noun; the latter is inflected for case by way of tone, parallel to the nominative, genitive, and instrumental (the latter is discussed in 9.4 below). Taking the noun 'woman' again, the following morphological and tonal marking is realised when it occurs in locative case.

12. k=à-bɛ́rʊ̀
    PREP=F-woman/LOC
    'in woman [lit. at the woman's place]'

The noun has a prepositional marker and the tonal marking LHL that is similar to its absolute marking which also has LHL tone. This is coincidental rather than a norm. The nominative tone for the same noun is LLL.

Basically, the locative or directional prefix **o-** and **ka-** for both singular and for plural forms is used to denote something that is 'inside'. These nouns are formed in semantically limited domains. In examples (13), the absolute forms appearing on the left is compared to the locative forms on the right. The first set of examples, i.e. (13a-c) is a case of syncretism, because a formal distinction between masculine and diminutive gender is neutralised with locative case. Some plural forms are presented in the structures in (14).

13.

	Absolute		**LOC/SG**	**LOC/PL**	
a.	í-tògò	'house'	ò-tógò	ò-tógò-ì	'inside the house'
b.	è-bólè	'bible'	ò-bólè	ò-bólè-ì	'inside the bible'
c.	è-cóò	'toilet/latrine'	ò-có-ò	ò-có-ì	'inside the toilet/latrine'
d.	à-kân	'hand'	k=à-kàn	k=à-kàn-ìn	'in the hand'
e.	à-kèɟù	'leg'	k=à-kéɟù	k=à-kéɟ-èn	'in the leg'
f.	à-kòòkì	'stomach'	k=à-kòòkî	k=à-kòòk-îs	'in the stomach'

Number marking may be replacive as is the case with (13c) or plurative marking, as with all other examples in (13). Further illustration of the locative is in constructions (14) below.

14. a. é-bóljá-té kà-làpàtàn
3-play-PL PREP-yard/LOC
'they play in the yard'

b. ò-síbàà k=ìsáp
LOC-cottage PREP=boys/LOC
'inside the boys' cottages'

The prefix **o-** is used for 'inside' while **ka-** is used for 'in'. Both prefixes occur with a low tone marked on them. The morphological prefixes, together with the tone are markers of locative case on these nouns.

9.5 The instrumental case

Instrumental case is marked on the noun by both tonal inflection and a proclitic similar to that which introduces the genitive case. The morpheme **k-** that is also used with genitive forms precedes the gender markers on the N that is used to perform a specified action. The verb is extended by an instrumental morpheme in a clause where an instrument is involved.

15. a. à-tùb-ìò émàèmbèt k=èkíléŋ
3-cut:PAST-INST mango/ABS PREP=knife/INST
'(s)he was cutting the mango with a knife'

b. à-tìŋ-ìò èmún k=àkítòì
3-hold:PAST-INST snake/ABS PREP=stick/INST
'(s)he held the snake with a stick'

c. à-bìl-ìɔ̀ èkék k=àmórù
3-break:PAST-INST door/ABS PREP=stone/INST
'(s)he broke the door with a stone'

d. à-ɲèm-ài èmùcèrè k=àkíɟìkɔ̀tɔ̀
3-eat:PAST-INST rice/ABS PREP=spoon/INST
'they ate rice with a spoon'

Instrumental NPs occur at peripheral positions; these are unmarked focus positions. The absolute forms for (15a-d) will be **èkíléŋ** 'knife', **àkítòì** 'stick', **àmórù** 'stone' and **àkíɟìkɔ̀tɔ̀** 'spoon', respectively. These absolute forms have the same tone marking as the locative. The following table provides a summary of Ateso case markers; where the noun 'woman' is used to illustrate the tonal shifts in the different case.

Table 9.2: Ateso case markers

Case type	Marker	Tone on 'woman'
Absolute	Tone	LHL
Nominative	tone	LLL
Genitive	tone	HLL
Locative	gender prefix and tone	LHL
Instrumental	tone	LHL

9.6 Conclusion

This chapter gave an account of Ateso's intricate and unique case-marking system. Case in the language is marked by tone. The analysis posits four main categories: marked-nominative case system, genitive, locative and instrumental case. Remarkably, Ateso has a marked-nominative case system which is a mixture of both accusative and the ergative system. Its similarity with the accusative system is such that the A and S are treated the same way, different from the O. On the other hand, the nominative is morphologically marked in both marked-nominative and ergative languages. Besides, Ateso exhibits split alignment where the only argument of the predicate of specific verbs (usually non-volitional) takes absolute rather than nominative case. The assignment of case is further illustrated in most examples of the clause and sentence structure chapter.

Chapter Ten: Clause and sentence structure

According to the typological profiles proposed by Baker (2001) and Greenberg (1963), languages belong to one of the six groups, SVO, VSO, VOS, OVS, OSV or SOV.[46] Ateso, just like some languages in the Eastern and Southern Nilotic groups, is a verb-initial language with a stable VS/VO structure.[47] All constituents in a finite clause follow the verb, in basic declarative structures. As illustrated in the previous chapters on verb morphology, the verb is inflected for agreement, tense, aspect and mood. Various derivational extensions also occur with the verb (e.g. causatives, itives, ventives and datives). The extended verb structure consisting of the root and its affixes determine the number of NP arguments that can occur with the verb.

In the present chapter the nature of the Ateso verb will necessitate an illustration of agreement features that hold between the verb, the arguments (pronouns, nouns or noun phrases) and other constituents within a clause and within the sentence. The chapter examines the VS/VO and other possible constituent orders, for both basic and complex morpho-syntactic structures, of the language. It will account for the various phrases, clauses, discourse markers and other constituents that apply to the syntactic phenomena.

10.1 Constituents of the Ateso morpho-syntactic structures

Ateso has a relatively rigid, fixed word order. The type of verb stem determines the number of arguments that can be added in a clause or in a sentence. Its basic order of major clause constituents is VS/VO where the verb heads its clause and is followed by the syntactic subject

[46] The six groups centred on word order classification are still dominantly used by linguists to date. Based on this form of classification, Ateso is a VSO language. However, some linguists (e.g. Hawkins 1983, Payne 1990, Schroeder 2008) have argued that this form of classification does not cater for languages that do not organise their word order according to grammatical relations but instead they are determined by pragmatic considerations. Matthews (1997) proposes a modified form of Greenberg's classification as OV vs. VO and SV vs. VS which basically translates to VS/VO, SV/OV, SV/VO, VS/OV. The classification of languages as OV or VO and as SV or VS yields types that are more relevant to typological predictions: it collapses VSO, VOS, and indeterminately VSO/VOS, all of which exhibit similar characteristics, into a single VS & VO type; and isolates the OV: VO parameter, which is fundamental to predictions in word order typology (Dryer 1997: 93-94).

[47] Chomsky (1981: 130) uses the term 'non-configurational languages' to refer to VSO languages. This may be related to the fact that the verbs in these languages occurs mostly as a separate entity from her elements that should occur in a predication slot (and discontinuous VP).

and the object. Pronouns and NP constituents carry case relations to the verb and also function as core arguments (i.e. as subjects and as objects) of a clause. Thus, the general pattern for basic structures as explained in the following discussion may be as follows:

V -verb only (with inflections for person, number, tense, mood etc.)
VS -verb NP (subject with nominative case)
VSO(O) -verb NP (subject) NP (object) NP (object)
VSO(X) -verb NP (subject) NP (object), an adjunct element can be added in the X position
VOS -verb NP (object) NP (subject)
SV -NP (subject) verb
OV -NP (object) verb
OVS -NP (object) verb NP (subject)

In a "verb only" construction, there exists a null overt subject. Grammatical relations such as subject and number are obligatorily marked on the verb by inflectional pronouns and are used to indicate thematic roles such as the agent.

1. a. á-lép-í
   1SG-milk-IPFV
   'I am milking'

   b. ká-lèp-ì
   1PL-milk:PAST-IPFV
   'we were milking'

   c. é-lép-í
   2SG-milk-IPFV
   'you are milking'

   d. é-lép-í-té
   3-milk-IPFV-PL
   'They are milking'

e. é-kwènà ìsàp
3-laugh:PAST boys/NOM
'the boys laughed'

Inflectional subject pronouns: 1SG, 1PL, 2SG and 3PL, in (1a), (1b), (1c) and (1d), respectively, are integrated on the verb. They give enough information about the non-overt independent personal pronoun subjects. The verb with its affixes is thus a complete proposition with the verb and the verb-internal subject. This is opposed to (1d) which consists of both an inflectional subject prefix **e-** on the verb and an overt subject N 'ìsàp'. The overt subject N in this clause is a second constituent and it influences the agreement morphology of the verb.

A verb may also be followed by more than one constituent leading to the formation of a VSO structure. In the VSO structure, the subject and object are obligatory elements whose positions can be occupied by a simple nominal or pronominal form. When the pronoun subject is dropped, the VSO structure becomes a VO. Because of the person marking on the verbs, which is an incorporated subject, syntactic pronouns are avoided (unless required for pragmatic reasons). The VSO order is thus not commonly used but rather exists in conjectural way with a non-overt subject that is presumed by both the speaker and addressee.

2. a. é-ŋàdàk-ì è-kìljòkìt àmɔ̀t(í)
3SG-keep:PAST-IPFV M-man/NOM pot/ABS
'The man kept a pot'

b. é-gòlò ɛ́kɛ́k
3SG-lock:PAST door/ABS
'(s)he locked the door'

c. è-ìnàk(ì) éòŋ èkìtàbó
3SG-give:PAST 1SG/ABS book/ABS
'(s)he gave me a book'

Object slots can be filled with nominal or pronominal elements. The NPs **á˔ mótí**, **ɛ́kɛ́k** and **èkìtàbó** occur as objects and have absolute tone. Noun subjects are overtly expressed as with **è-kìljòkìt (**2a). Subject positions in the (2b) and (2c) are not obligatorily occupied by NP or

independent pronoun instantiations of arguments since they are only necessary for discourse or pragmatic functions. For (2c), there are two objects; one is a pronoun and the other a nominal form. In this case, the objects are presented as either patient or recipient, occurring in the order where the recipient **éòŋ** comes first and it is followed by the patient **èkìtàbó**. Both 'patient and recipient' objects in (2c) occur in the absolute case.

Likewise, the overall extended clause consists of a core and a periphery. Verbs, subjects and objects constitute the core constituents and other constituents may be added to form peripheral units in an extended structure. The X position in brackets, as shown above, can be occupied by different peripheral optional elements such as the adverbs and prepositional phrases. The difference between subject and object NPs in basic structures is their syntactic positioning where the subject sometimes appears before an object. Example (3) presents the order of constituents in the VSO and VSO(X) patterns, respectively.

3. a. é-ɲém-í è-twàn í-kòŋ
   3SG-eat-IPFV M-man/NOM D-termite/ABS
   'the man is eating termites'

   b. è-ɲèm-ì è-twàn í-kòŋ ébóŋ
   3SG-eat:PAST-IPFV M-man/NOM D-termite/ABS in.the.evening/ABS
   'the man was eating termites in the evening'

The form **ébóŋ** is an addition onto the structure in (3a). It is a peripheral element that provides information on when 'the termites were eaten'. Some variations are possible in the order of both post-verbal constituents. The order is such that objects precede subjects if the object is pronominal and the subject is inanimate. The VOS order is exemplified in (4) where 1SG is the object and **étèŋè** 'hunger' is the subject.

4. á-àrìt éòŋ étèŋè
   1SG-kill 1SG/ABS hunger/NOM
   'I am hungry' (lit. 'hunger is killing me')

Also, the subject can occur after **màm(ʊ̀)** 'NEG' and before the verb. Example (5) is a negated structure whose negated elements are in focus.

5. màmʊ̀ éòŋ á-ŋàdàkì àpéséí kón
   NEG 1SG/ABS 1SG-keep:PAST money/ABS your
   'I have not kept your money'

The negator màmʊ̀ in (5) precedes the 1SG that is marked absolute, which in turn follows the verb.

Moreover, there are clauses that occur with stative verbs. They consist of a stative verb 'to be' and one or two NPs. The resulting order will be 'to be' NP (NP) where the first NP is marked nominative while the second NP has absolute marking. Example (6) exemplifies this type of structure:

6. é-ráítí à-bɛ̀rʊ̀ á-kàcúdàn
   3SG-to.be F-woman/NOM F-witch/ABS
   'the woman is a witch'

The inflectional person and number prefix is attached to the stative verb which precedes the NPs **à-bɛ̀rʊ̀** and **á-kàcúdàn**. The clause in (6) can occur without the stative verb. The resulting verbless clause is glossed the same way as those in (9) where the discussion on verbless clauses is advanced.

Meteorological expressions indicating existing conditions such as 'weather' like those in (7a-b) below also tend to occur with stative verbs.

7. a. é-póló ékùwàm
      STV-big wind/NOM
      'it is windy'

   b. é-dóé àkìrù
      STV-fall rain/NOM
      'it is raining'

Conditions surrounding beings are exemplified by (7a-b). The stative form **édóé** with the meaning 'fall' only applies to 'the rain'. The verb can be used in isolation to mean, 'it is raining'. However, **épóló** 'big' can be used with other subjects as they do not necessarily apply to 'wind' only.

Further, an auxiliary can occur with the form **édóé** to form an AUX verb only clause, a case of epistemic modality. Example (8) has an AUX which precedes **édóé**.

8. é-béíkín é-dóé
   3-AUX 3-rain
   'it might rain'

Both verbs are conjugated, where; the third person marker is used as an "explitive". The two constituents are both marked for non-past tense.

Lastly, there exist non-verbal clauses in the language. Non-verbal clauses may consist of two NPs or an NP and a pronoun. The subjects in verbless clauses are not implied or recoverable from context. Some non-verbal clauses found in the language are illustrated in example (9). Since the present discussion only focuses on the surface form, the deep structure of non-verbal clauses might consist of verbs which are not overtly expressed in the surface structure.

9. a. éòŋ è-mɔ̂ŋ
      1SG/ABS M-bull/ABS
      'I am a bull'

   b. òsì í-kòkòlá-k
      2PL/ABS D-thief-PL/ABS
      'you are thieves'

   c. àíbò á-mʊ́kàná?
      where/ABS F-shoe/ABS
      'Where is the shoe?'

   d. à-bɛ́rʊ̀ nà-kà-cúdàn(i)
      F-woman/ABS F-DER-witch/ABS
      'the witch woman'

Non-verbal clauses have a PRON + NP or NP NP shape, where a pronoun precedes an NP or an NP is followed by an NP. Example (9a) is an expression where the 1SG claims to have a bull's attribute (strong, and has conquered). No particle or word form intervenes between the 1SG

pronoun predicate and the noun subject **ɛ̀-mɔ̂ŋ** when reference is made to a situation holding for the present just as with (9a-c). In (9b), the 2PL subject admits that 'they are thieves'. Example (9c) is a combination of an interrogative pronoun **àíbò** and an NP **à-mʊ́kàná** where the resulting structure is a question while (9d) is an example of an NP NP clause where the noun **à-bɛ́rʊ̀** follows a derived noun, **nà-kà-cúdàn(i)**; both NPs carry absolute case.

The language also has constructions expressing existentials and possession. Existentials are used to indicate that a being, a person or object exists or is present. An existential meaning of the NP is expressed by the existential verb **áɟèì**, loosely translated as 'present', introduces the 'exist' meaning. The constituents in an existential clause are; an existential verb following an NP.

10. a. á-ɟèì èdèkè
3-EXTL God/NOM
'God exists'

b. á-ɟèì èsùkwârì
3-EXTL sugar/NOM
'there is sugar'

c. á-ɟèì èmìrì
3-EXTL rat/NOM
'there is a rat'

d. á-ɟèì étwàn àmón
3-EXTL man/NOM forest/ABS
'there was a man in the forest'

The constituent order for existential constructions is the existential verb followed by the subject or person being referred to or thought to exist. The range of NPs that may be said to exist include beings (e.g. **èdèkè** 'God' in (10a)), animate forms, as in the case of **èmìrì** 'rat' in (10c) and non-animate forms, as with **àmòn** 'forest' in (10d). The word for God can either be **nàkàsúbàn** or **èdèkè** depending on the speaker's preference though most speakers prefer to use the latter (field notes, Barasa).

Existential verbs can be negated with the resulting meaning of 'absence or non-existence' of a being or object. In the negated structure, the existential verb is preceded by **màm(ʊ̀)** 'NEG'. The formation of negated structures from the non-negated structures in (10) is illustrated in (11) below.

11. a. màmʊ̀ à-ɟèì èdèkè
NEG INF-EXTL god/NOM
'there is no god'

b. màmʊ̀ à-ɟèì èsùkwârì
NEG INF-EXTL sugar/NOM
'there is no sugar'

c. màmʊ̀ à-ɟèì ímìrjô
NEG INF-EXTL rat/NOM
'there are no rats'

In the negated clauses in (11), existential verbs precede the being or object that is non-existent or absent. Existential verbs follow the NEG form.

The verb **-ɟas(i***)* 'have/own' together with the possessive marker **k=** procliticised to the noun are used to express ownership or that one possesses(ed) something. Person prefixes are affixed to the possessor verbs. Prefixes on the verb relate to the subjects that may or may not be overtly expressed by a pronoun or noun.

12. a. á-ɟásí k=éítàbò
1SG-have PREP=book/ABS
'I have a book'

b. é-ɟásí k=íkókù
3SG-have PREP=child/ABS
'(s)he has a child'

c. é-ɟàsì k=éítàbòì
3-have:PAST PREP=book/ABS
'they had books'

d. é-ɟàsì é-twàn k=àkìtùk àúní
3SG-have:PAST M-man/NOM PREP=cattle/ABS three
'the man had three cows'

Examples (12a-b) are in the non-past form, as marked by high tone on the possessive verb root 'have', while (12c-d) are in past tense as indicated by the low tone on the possessive verb root.

The markers prefixed to the objects of affirmatives are maintained in negative clauses. Negation is marked by **màm(ʊ̀)** 'NEG' that precedes the possessive verb root which also acquires a proclitic **k=** prefixed to the object. This is illustrated in (13).

13. a. màmʊ̀ k=é-ɟásí k=éítàbò
NEG PREP=3SG-have PREP=book/ABS
'they do not have a book'

b. màmʊ̀ k=é-ɟásí k=ésìrìgìt kòn
NEG PREP=3SG-have PREP=money/ABS yours
'(s)he does not have your money'

c. màmʊ̀ k=è-ɟàsì k=íkókù
NEG PREP=3SG-have:PAST POSS=child/ABS
'(s)he did not have a child'

Overall, a variety of surface word orders expressed in Ateso is an interesting phenomenon that calls for future research. After establishing the possible constituents in the language, the discussion proceeds to cover simple and complex clauses.

10.2 Clause structure

Clauses can be made up of an inflected verb only or an inflected verb and one; two or three NPs. NP constituents carry different syntactic roles. The constituents, as they are labelled cross-linguistically, can be patients or recipients. Animate referents occupy recipient positions while

the patients are either animate or inanimate. Patients occur with verbs and they follow the recipients in an VSOO order. All the examples used in the subsequent sub-sections of are declaratives.

Declaratives serve as the basis for generalisation and transformation for other sentence types. Based on Greenberg's (1963: 110) observation, declarative sentences in different languages - Ateso included, usually have the subject preceding the object, probably because of the features of topicality that are associated with subjects. In (14a) for instance, the subject is expressed by inflectional person markers only (pronounal subjects occur non-overtly) and is followed by the object **òsòmèrò** 'school' which in turn is followed by an adverbial **èbòŋ**.

14. a. é-lòsè-tè ò-sòmèrò èbòŋ
3-go:PAST-PL LOC-school/ABS evening
'they go to school in the evening'

b. á-dòlù-tù èpàɟàn òré érókò ákòlòŋ
3-reach:PAST-PL relative/NOM home/ABS before sunset
'the relatives reached home before sunset'

For (14b), the nominal subject **èpáɟàn** and the object **òré** must be overtly expressed for the intended meaning to be effectively conveyed. The post-verbal NP and subject is marked nominative while the object has absolute case.

Basic structures focusing on transitivity using declarative forms as examples are discussed in 10.2.1. In sub-section 10.2.2, the focus will be on interrogative clauses which are partly derived from declaratives.

10.2.1 Transitivity

Based on the traditional cross-linguistic definition, Ateso verbs are intransitive or transitive. The transitive class also includes ditransitive verbs (see Kulikov et al. 2006). There also exist verbs that can occur either as intransitive or transitive, herein referred to as ambitransitives.

In the following sub-sections, Ateso's syntactic sub-categories are identified depending on the semantics of the verbs and the types of arguments that they can take. As already mentioned in the

verb morphology section, the verb is the head of the clause. It carries person, number, tense, mood and different derivational markers, in its morphologically most complex form. A verbal base determines the type of clause in which the phrase occurs and the number of constituents that occur with it in a single unit. For instance, if the verbal base is transitive, the whole verb phrase becomes transitive; the same applies to an intransitive verb phrase. The following sub-sections describe the basic intransitive, transitive, ambitransitives and ditransitive clauses with verbal predicates.

10.2.1.1 Intransitive clauses

The basic constituent order for Ateso clauses with an intransitive verb is VS. Payne (1997: 171) mentions that an intransitive verb is one that describes a property, a state or situation involving only one participant. The subject in intransitive clauses, just like in transitive structures, is morphologically marked by an inflectional person pronoun prefixed on the verb. The independent subject which coincides with subject prefixes may be expressed by a noun or pronoun. Pronoun subjects are generally omitted while NP subjects, such as **ɛ́-pɛɟɔ̀n-ɔ̀n** in (15a) must be overtly expressed. Some intransitive verbs are used with statements such as those referring to emotions as is with (15c) below.

15. a. á-kèr-ìt ɛ́-pɛɟɔ̀n-ɔ̀n
    1SG-run-PFV D-visitor-SG/NOM
    'the visitor ran'

    b. á-móŋ-í è-tèrà-n
    1SG-cry-IPFV M-bride.groom-SG/NOM
    'the bride-groom will be crying'

    c. à-lòmò àkólóŋ
    INF-enter sun/NOM
    'the sun set'

Following the established case system of the language, all the NP subjects preceded by the verb in (15) is marked nominative. These subjects have roles of agent or theme.

The next section presents the transitive and ditransitive clauses. It begins with the discussions on

transitive forms, moves to ambitransitives and later, ditransitives.

10.2.1.2 Transitive clauses

Transitive clauses are prototypically headed by a transitive verbal predicate. Core participants, i.e. subjects and objects, occurring post-verbally in clauses are easily distinguished by their formal marking in terms of case. Verbs in transitive clauses must be followed by an NP which functions syntactically as an argument of the verb, that is, as a direct object. Object arguments in transitive clauses are regarded as goals or patients. The head representation of the transitive verb is a verb, and the basic VP consists of head plus an NP. The basic constituent order of clauses with transitive verbs is VSO. Transitive clauses are illustrated as follows:

16. a. é-ɲém-í è-twàn í-kòŋ
3SG-eat-IPFV M-man/NOM D-termite/ABS
'the man is eating termites'

b. è-tèkèr-ìt è-kíjàkjà àbàìsìkɛ̀ljɔ̀
3SG-ride-PFV D-messenger/NOM bicycle/ABS
'the messenger rode a bicycle'

c. è-sùkùɲ-tà í-pɛ̀ɟɔ̀k àmèsà
3-push:PAST-PL D-visitor/NOM table/ABS
'visitors pushed the table'

d. é-kórí-énén-é-té ékùrìdìd(i)
3-grow-HAB-IPFV-PL maize/ABS
'they grow maize habitually'

Arguments in transitive clauses are of two types; one type is an agent or an experiencer (subject) that causes an event or leads to a change of state (e.g. **è-twàn** 'man' in (16a) is the subject), and another is a patient or goal that an event or a change of state affects (object) as is the case with **í-kòŋ** 'termites' in the same clause. Clauses become syntactically ungrammatical if only one argument is used with the transitive verbs, for instance, for (16c) to be complete, **í-pɛ̀ɟɔ̀k** 'visitors' must be followed by the patient **àmèsà** 'table' that receives the action of the agent

while others like (16d) have only one overt argument since the pronominal subject is not overtly expressed for reasons explained above.

10.2.1.3 Ambitransitive clauses

Related to the notion of transitivity, Ateso has ambitransitive verbs, that is, verbs that may take (or occur without) an object. Alternatively, these verbs occur as either intransitives or transitives without change of form. Ambitransitives that occur without NPs form complete propositions, as is the case with the verb è-ɲém-é-té in (17a) which can also occur with an object, as indicated in (17b).

17. a. è-ɲém-é-té ŋìlì-pàràn
    3-eat-IPFV-PL every-day
    'they eat everyday'

    b. à-ɲém-énén-é éòŋ íɲàmàtà ààŋí ŋìlì-pàràn
    1SG-eat-HAB-IPFV 1SG/NOM food/ABS mine/ABS every-day
    'I eat my food everyday'

    c. é-bòlj-ènèn-è-tè kílì-pàràn
    3-play-HAB-IPFV-PL every-day
    'they played every everyday'

    d. é-bóljá-té ékàfúdó
    3-play-PL ball/ABS
    'they play football'

    e. í-rùk-ìt ìkwèɲ(ì)
    3SG-sing-PFV bird/NOM
    'the bird sang'

    f. é-rùkòk ìkwèɲì èkòsòi
    3SG-sing:PAST bird/NOM song/ABS
    'the bird sang a song'

In the first clause (17a), 'eat' is used intransitively where no object occurs with it. On the other hand, 'eat' in (17b) is used transitively with a direct object, **íŋàmàtà** 'food'. This applies to the rest of the examples which can alternate from intransitive or transitive or vice versa.

As illustrated by the examples above, both intransitive, transitive and ambitransitive structures have the verb occurring at clause-initial position. The subject and object follow the verb in the respective order.

10.2.1.4 Ditransitive clauses

Those structures that have verbs that accept two objects are termed as ditransitive (cf. Kulikov et. al. 2008: 2). The prevalent maximum constituent order in Ateso's basic ditransitive clauses is VSOO where, there is the ditransitive verb and three arguments, a subject and two objects. The order of object constituents is such that recipient and benefactive objects precede patient objects in a construction. Recipient objects occurring in the core argument positions are always an NP. Despite having three arguments, these structures are classified as simple clauses since they carry only one proposition.

18. a. é-sòm-àk-ìt ɟáɟá ébàrwàìt
3SG-read-DAT-PFV aunt/ABS letter/ABS
'(s)he read the letters to (the) aunt'

b. é-ìn-àkìn-ì èmúsàgòt Pétérò àpàkí
3SG-give:PAST-DAT-IPFV butcher/NOM NP/ABS permission/ABS
'the butcher gave Petero permission'

c. é-lìm-òk-ìt lù-kà-tùmùnàk àkìrò
3SG-tell-DAT-PFV N-DER-youthABS story/ABS
'(s)he told the youths a story'

d. é-tjàk-àkìn è-múrwò-k àkàtòlà
3SG-cut:PAST-DAT M-doctor/ABS sugarcane/ABS
'(s)he cut (divide) sugarcane for the (traditional)doctors'

Examples in (18) show that ditransitive clauses take three arguments. Taking (18a) for illustration, the arguments are: 3SG subject, a patient - **ɟájá**, and a recipient object; **ébàrwàìt**. The most important grammatical relationship indicator is tone and the structural case. Both patient and recipient objects have absolute case. Dative functions occurring as an object in clauses such as (18d) is syntactically an argument of the verb. In general, all subject NPs are overtly expressed while pronouns in the subject positions are often omitted since they are already prefixed on the verb. At the object position, pronouns such as nèsí in (19) below are overtly expressed and have absolute tone.

19. é-ìn-àkìn nèsí àkàlàmùtù
    3SG-give-DAT 3SG/ABS pen/ABS
    '(s)he gave him a pen'

Both the 3SG subject and indirect object, also a 3SG, are human entities that carry agentive and dative functions, respectively.

10.2.2 Interrogative clauses

An interrogative clause is often used to seek information from the interlocutor rather than the truth value of a proposition. It is used to request for information or confirmation of the speaker's understanding of a state of affairs (Andvik 2010: 192). Interrogative clauses in Ateso can be used to ask whether the action has been performed by a particular person or particular object. These questions are of two types; i.e. content questions and polar questions.

10.2.2.1 Content questions

Content questions are those that are not limited to the number of possible responses compared to polar questions. All the NPs or pronouns that follow a verb may be asked about by the content questions. The information being asked about may include: place of occurrence, manner of occurrence, why the occurrence, who initiates the occurrence and what occurs or causes to occur.

The use of interrogative pronouns (that were presented in the chapter on pronoun and pronominal alignment) is one of the methods for question formation. Notably, interrogative words inherently carry focus. The focus position is the pre-verbal context, except in the last example in this set, which is often the position for pronoun subjects. Consider the following examples:

20. a. ŋàíbó k=í-rjàm-àkìn-ò-s(i) k=éɟàkàìt
IP/who PREP=2SG-meet:PAST-DAT-REC-PL PREP=chief
'Who met the chief?'

b. àíbó k=é-ìkàrì nèsì
IP/where PREP=3SG-go:PAST 3SG/NOM
'Where did he go?'

c. ìŋénâ è-kòtè à-bɛ́rʊ̀
IP/what 3SG-want:PAST F/SG-woman/NOM
'What did the woman want?'

d. ìŋénâ k=í-kélébwárì
IP/why PREP=2SG-late
'Why are you late?'

e. k=í-tùbùtùbì íjò ákíríŋ kóní
PREP=2SG-cut:PAST 2SG/NOM meat/ABS IP-how
'How did you cut the meat?'

Looking through the examples, interrogatives are preferentially placed clause-initially. Only terms for 'how' have clause-final placement, i.e. occur in-situ, as illustrated by (20e). Except for **kóní**, the inherent position of an Ateso question-word is at the beginning of the clause, they do not occur in situ, contrary to Southern or several Western Nilotic languages (cf. e.g. Storch 2010).

Likewise, interrogative words do not have a profound effect on the organisation of the Ateso clause, as they just fit into the rigid V(S) structure that they precede.

21. a. ŋàíbó è-sùkùŋà lò-kà-gwɛ́làn
IP/who 3SG-push:PAST M-DER-buyer/NOM
'Who pushed the buyer?'

b. wàlìbó èŋì nèsì?
IP/where is 3SG/NOM
'Where is he?'

c. íŋnènàbó kóbù k=è-gwèl
IP/what did PREP=3SG-buy
'What did (s)he buy?'

d. ìŋnò kà-àŋùnàjò nèsí
IP/how 1PL-see 3SG/ABS
'Why did we see him?'

Apart from **kóní**, the syllable of the last segment of an interrogative clause often receives a question intonation, that is, a rising intonation. However, the relative intensity of loudness in Ateso words is difficult to perceive as there exists a variance of end word stress on question structures dependent on the addresser.

Two factors are involved in asking questions i.e. the intention of the speaker and the information known or unknown to the speaker. Affirmative responses to questions just like those mentioned above would either be an independent pronoun or a noun. For example, the answers for (21a) and (21c) may be (22a) or (22b), respectively.

22. a. nèsí 'him or her' or Ogut 'NP'
b. àkìrjà 'flour'

A number of responses are possible for these questions; depending on context. The response referent listed in (22) may be known or unknown to the speaker. This differs from the polar questions discussed below.

10.2.2.2 Polar questions

Polar questions are also called yes/no questions as they are framed in a way that makes 'yes' and 'no' the expected answer. They seek information on whether or not something happened, is happening or will happen. According to Kroeger (2005: 203), they are 'closed questions' since the set of possible answers is closed, containing two members (*yes* or *no*) only. Kroeger (2005)

further identifies devices for marking yes-no questions as: intonation, clitics, verbal affix and change in word order.

There are various possibilities that apply to Ateso polar questions. There are polar questions which do not contain a question word and are syntactically similar to declaratives except that they have a rising intonation at the end, (see e.g. (23d) below). Two, a pre-verb particle **kebu** that consists of a proclitic **k=** attached to **ebu** 'come' precedes the declarative clauses thus making them questions, as in (23a) and (23b). Lastly, the prefix **k=** may be attached to the verb of a declarative structure making them questions, as with (23c): the only marker for this polar question is the **k=** on the verb, otherwise the default word order V(S)O, V(S) or V(S)OO remains. The construction with the initial **k=** that is found in Maasai appears to have disappeared from other Teso-Turkana varieties (see Tucker & Mpaayei 1955).

Normally, when asking these questions, the information is known to the speaker but (s)he wants to get some affirmation or refusal about the state of affairs (e.g. the speaker in (23c) knows that the referent might have been 'sick' (s)he wants an affirmation or refusal of this situation). Basically, these questions are used to seek affirmation from the interlocutor that something has happened or has been done. Sometimes the questions are in reference to something which has already been talked about. Consider the following examples.

23. a. k=é-bú kò-lòtò ó-sòmérò?
PREP=3-come IMP-walk LOC-school/LOC
'Did (s)he go to school?'

b. k=é-bú è-mòɟòŋìt kò-àɲùn-ò-sì kà Petero
PREP=3-come M-old.man IMP-see-REC-PL GEN NP
'Did the old man meet Petero?'

c. k=é-dèkà nèsì?
PREP=3-sick 3SG/NOM
'Has he been sick?'

d. à-àŋùn Okunyuk màmàí kèŋ?
PFV-see NP uncle POSS
'Will Jane meet her uncle?'

Taking (23a) for illustration; the speaker knows that the subject was supposed to go to school. The speaker's question aims at an answer which confirms or refutes the claim that the subject went to school. The response to the question is thus limited to a 'yes' or 'no'. A 'yes/no' interpretation also apply to the interrogative constructions below where different references are made to the occurrence of some event in which the speaker may be involved.

24. a. í-kòtè ìjò á-lósí-té òré?
2SG-want 2SG/NOM 3-go-PL home/ABS
'Do you want to go home?'

b. é-ɲémé-té kèsì ákìríŋ?
3-eat-IPFV-PL 3PL/NOM meat/ABS
'Are they eating meat?'

c. é-lós-í-té (kèsì) Asing'e?
3-go-IPFV-PL 3PL/NOM NP
'Are they going to Asing'e?'

d. í-líp-í ìjò?
2SG-pray-IPFV 2SG/NOM
'Are you praying?'

All the declarative clauses in (24) are said with a rising intonation to make them questions. Apart from change of tone due to the rising intonation, these questions are structured in the same way as declarative sentences. Further, overt pronominal subjects are preferred in the question sentences so as to leave no doubt to the referent subject or object. When asking about the person who 'prayed', for example, an independent personal pronoun **ìjò** is used since it is the subject; that which is marked on the verb by the inflectional personal pronoun.

As already mentioned above, statements can also be changed to questions by a pre-verb form **kebu**, occurring with IMP verb forms. Statements in (25) will thus be realised as questions in (26) when **kebu** precedes each of them.

25. a. é-dwèŋ-ìt ékúrùdìdì
3-harvest:PAST-PFV maize/ABS
'they harvested maize'

b. é-dúk-í pápà étògò
3SG-build-IPFV father/NOM house/ABS
'father is building a house'

26. a. k=è-bù kò-dwèŋ ékúrùdídí?
PREP=3-come IMP-harvest maize/ABS
'Did they harvest maize?'

b. k=è-bù́ kò-dùk pápà étògò?
PREP-3-come IMP-build father/NOM house/ABS
'Did father build a house?'

The change from positive statements to questions is accompanied by **kebu** and a rising intonation. In case the subjects are not overt, the objects will follow the verb; as with the object **ékúrùdídí** in (26a) which follows the verb **kò-dwèŋ**.

10.2.3 The potential

The potential are structures that express ability to do something. It is indicated by the auxiliary verb **-bekin**. The auxiliary verb occurs with different person markers as determined by person and number referents.

27. a. á-békín àmòɟòŋ́ít à-táráún íjò èmúdíkî
3SG-be.possible old.man/NOM 3SG-make 2SG/ABS blind
'it is possible for the old man to make you blind'

b. é-békín à-gwél àkíkóŋ́ósín kéré
3SG-be.possible 3SG-buy phones/ABS all
'(s)he can buy all the phones'

All subjects occurring with the potential structures are fronted and thus appear before the main verb as illustrated in (27a) where the NP subject **àmòɟòŋ́ít** precedes the verb **à-táráún**. The object **íjò** and **àkíkóŋ́ósín**, in (27a) and (27b), respectively, follow the main verb. The second verb has the same person marker prefix as that of the auxiliary.

To indicate negation of the potential, the negation word **màm(ʊ̀)** 'NEG' precedes the auxiliary verb **-bekin** as exemplified in (28) below. The constituents after the negator are positioned the same way as those of the positive structures in (27), i.e. AUX S V O or AUX V O.

28. a. màmʊ̀ é-békín ká-áɲʊ́né-tɛ̀ òní
NEG 2SG-AUX 1PL-see-PL 1PL/ABS
'you cannot see us'

b. màmʊ̀ kí-békín í-rjám-ákín-ó-sí nèsí
NEG 1PL-AUX 1-meet-DAT-REC-PL 3SG/ABS
'we cannot meet him'

The plural marker is suffixed to the main verb only as is the case with **-tɛ** in the verb **ká-áɲʊ́n-tɛ̀** '1-see-PL' in (28a). On the other hand, all the negatives are derived in pretty much the same way by adding **màm(ʊ̀)** to the affirmative.

To conclude the discussion so far, the section on clauses examines the basic word order in the language. Ateso is a zero anaphora language, where a clause can be grammatically acceptable even without the surface expression of pronoun arguments. Pronominal subjects are generally omitted in basic structures and are often recoverable from context (see e.g. (27b) and (28b)). In cases where the subject is not mentioned, mostly in speech, the subject can be picked from the discourse context. When present, the subject occurs post-verbally in simple clauses although they may also precede the verb for emphasis. A clause is made up of a core and peripheral elements. Verbs, subjects and objects constitute the core and other constituents, such as prepositional phrases and adverbials constitute the periphery in clauses. Peripheral elements do not take part in the valence of verbs.

There is also a range of additional components that applies in the syntax of the language. This is discussed in section 10.3. The sections present an analysis of extended syntactic structures and complex clauses of the language.

10.2.4 Complex clauses

There are five main types of complex clauses in Ateso, that is, relativisation, complementation, simulatives, superlatives and focus marking. In this section, I examine the syntax of these types of complex clauses.

10.2.4.1 Relativisation

Relativised structures generally consist of antecedents followed by relative clauses. The relativised clauses are embedded in another NP. The relativiser **lo** and **na** for singular**,** or **lu** and **nu** for plural are used to form relative clauses. The two markers can occur in reduced for as, **l-** and **n-,** a reduced form of **lo-** and **na-** for singular and **lu-** and **nu-** for plural forms, respectively, as they are gender sensitive relative pronouns; thus, their vowels are fused to the gender morphemes.

29. a. é-twàn lò à-ɲùnì è-mòrìmór
M/SG-person REL 3SG-see:PAST M-king/ABS
'the person who saw the king'

b. í-dwé l=èɟùkjàrì (nèsì) ó-sòkònì
N/PL-child/ REL=send:PAST 3SG/NOM LOC-market/LOC
'the student whom (s)he sent to the market'

c. á-kómpjùtà n=àsèkùnò ó-dùkàì
M/SG-computer REL=pick: PAST LOC-at.the.shopping.centre/LOC
'the computer which was picked at the shopping centre'

d. í-tùŋà lù à-ɲùnì ɔ̂ní
M/PL-person REL 3-see:PAST 1PL/ABS
'the people who saw us'

The relativized morphemes occur in free forms in (29a) and (29d). In (29b) and (29c) they are fused to the verbs.

In both subject and object modifying relative clause structures, the inflectional marker on the verb agrees with the head N in number. The N in the main clause is co-referenced to the possessive modifier of the relative clause. This is illustrated by the alternation of singular and plural structures in (30) whose verbs occur with the relativiser **l-**.

30. a. á-twànà é-twàn l=é-pòsjò
3-die:PAST D-person/NOM REL=3SG-beat:PAST
'the person who was beaten died'

b. à-twàkà-tà í-tùŋà l=é-pòsjò
3-die:PAST-PL D-person/NOM REL=3-beat:PAST
'the people who were beaten died'

Example (30a) has a 3SG marker which agrees with the subject and is similar to the marking on the relativised verb. This is also the case with the 3PL prefixed to the verb in (30b).

10.2.4.2 Complementation

Clauses in complementation express an intimate syntactic relationship where a complement phrase is embedded in a main clause. The embedded clause represents the object of the matrix clause. The resulting merger of the two clauses can be subsumed under complex clauses. A complementiser **bè** or **èbè** occurring in the complement clause form a strategy for complementation.

Two clauses in complementation are linked by any of the three linking devices. The main verb such as **álìmòkìn** 'to tell for' in (31) below is a transitive verb that requires two arguments; the complement clause obligatorily fills the direct object slot.

31. a. á-lìm-òkìn ɛ́pɛ̀ɟɔ̀nɔ̀n èbè á-lòsì ídwé órè
1SG:PAST-tell-DAT visitor/ABS COMP 3-take child/ABS home/ABS
'I told the visitor that (s)he should take the children home'

b. á-lìm-òkìn è-twân èbè é-kòtè pápá kèn à-ɲùùnì nèsí
3-tell-DAT D-person/ABS COMP 3-want father/ABS his 3-see him/ABS
‘(s)he told the person that his father wants to meet him’

c. á-lím-ókìn íjò èbè á-tàmàrì pápá kà-ɲàmà
1SG-tell:PAST-DAT 2SG/ABS COMP 3-say father/ABS 1PL-eat
‘I tell you that father has said we eat’

The V-Complement structures constitute up to three arguments. For clauses in (31), for instance, the transitive verb **álìm-òkìn** ‘told’ with a dative extension allows three arguments. This (main) verb occurs at sentence initial position, while the verb heading the complement clause is preceded by the complementiser.

Basically, the complement clause introduced by a complementiser **bè** or **èbè** ‘COMP’ constitutes one of the arguments that main verbs require. This can be further illustrated in example (32) below.

32. a. àɟɛ̀n-ʊ̀n bè é-mèrà étwàn
3-discover:PAST-VEN COMP 3-drink:PAST man/NOM
‘it was discovered that the man was drunk’

b. é-sìlà ètèràn èbè é-kòkòì-tè èkítàbò
3SG-confess:PAST bridegroom/NOM COMP 3-steal-PL book/ABS
‘the bride-groom confessed that they stole the book’

c. á-ɟèn-è-tè èbè é-làɲà étwàn kà-kèrìtè
3-know-IPFV-PL COMP 3-defeat man/NOM PREP-race
‘they know that they beat the man in the race’

In structures such (32a) above **bè émèrà étwàn** ‘that the man is drunk’ constitutes the object argument of the main verb. Together with the main clause, it forms a complex structure.

For reported speech, the verb **ébàlàì** ‘said’ precedes the complementiser **èbè** ‘COMP’. This is a case of evidentiality about an action that applies to the object. Consider examples (33) below.

33. a. é-bàlài èbè é-búút-í lò-kà-dwàràn
3-say COMP 3-come-IPFV M-DER-prophet/ABS
'it is said that the prophet is coming'

b. é-bàlài èbè é-lòs-ìt nèsí kʉ̀ʉ̀ k=àkìpì
3-say COMP 3-walk-PFV 3SG/ABS PREP PREP-water
'it is said that he walked on water'

The subject is presumed in the clause with the speaker only stating an uncertain event either in the non-past as with (33a) or in the past as in (33b).

10.2.4.3 Simulatives

Equatives or simulatives are used to indicate that something resembles or is similar to another. They are complex structures since they involve secondary predication over the first predicate or verbal expression. A simulative verb **bàlà** 'be like (etymology: 'say')' expressing a secondary predication links the verb to an NP in order to express similarity.

34. a. é-sìtò bàlà í-kòkòlák
3-look EQ D-thief/ABS
'they look like thieves'

b. é-kèr bàlà ípùùsì
3SG-run EQ cat/ABS
'(s)he ran like a cat'

c. é-pùtò lòlò bàlà djàní
3-resemble today EQ yesterday
'today looks like yesterday'

d. é-jàsì kípònòsjô bàlà nèsí
3-has behaviour EQ him/ABS
'(s)he behaves like him'

Components or behaviour of the first NP is compared or equated to the attributes of the second NP which is said to be similar. In (34b), for example, the '3SG' subject runs in a way that is

similar to the way ‘a cat’ runs. For (34c) and (34d) the actions that applies to the first NP also applies to the second NP. The subjects in the first segment are not overt but are retrievable from context; see also (34d).

10.2.4.4 Superlatives

For comparison of inequality, two clauses are linked by means of the comparative prepositional phrase **kàmà kà** ‘surpass’. A stative verb occurs as the first verb in the initial predicate position and is linked to the superlative form in the second clause. The resulting structures indicate comparative meaning.

35. a. é-pòlò átògò lò-kà-bàrèn-òn kàmà kà làŋî
3-big house/NOM M-DER-barber-SG/ABS surpass PREP mine
‘the barber’s house is bigger than mine’ [lit. the house (of the barber) is big surpassing mine]

b. é-dìtè kàmà kà Petero
3SG-small surpass PREP NP
‘(s)he is younger than Petero’

c. é-pòlò íŋɔ̀kɔ̀ kàmà kà ípùsìnì
3-big dog/NOM surpass PREP cat/ABS
‘dogs are bigger than cats’

Here the clauses consist of two constituents being compared plus the frozen form **kàmà kà** of the original ‘surpass’ expressing superlative. For illustration, the comparative verb in (35b) relates the age of the 3SG to that of Petero’s ‘NP’.

10.3 Sentence structure

This section is meant to present the sentence structures that could be found in the language. Essentially, there are three main strategies for formation of sentences in the language; i.e. coordination, clause chaining and subordination. The verb remains the head of sentence structures. The discussion of sentence structures is further expounded in the following sub-sections.

10.3.1 Coordination

Cross-linguistically, coordination involves the linking of two or more independent linguistic constituents to produce a single constituent of an independent category (see e.g. Payne 1997). Ateso's coordination exists in different forms. It is either marked by a coordinate conjunction **kèrè** or by clause chaining (as elaborated in section 10.3.2). Consider example (30) below.

36.	í-bóé	kàné	kèrè	í-lósí	íjò	órè
	2SG-stay	here	CONJ	2SG-go	2SG/ABS	home/ABS
	'are you staying here or are you going home'					

The complex structure in (36) consists of two clauses. The two clauses are linked by a coordinating conjunction **kèrè**. Two constituents linked together may be used to present different meanings. To present alternative constructions of additive relationships, a coordinating conjunction **kèrè** 'or' occurs between two clauses that form a complex structure. This type of coordination as indicated in (36) above is further illustrated in (37) below.

37. a.	é-ɲém-í	íkòlè	kèrè	é-ɲém-í	éˬ djá
	2SG-eat-IPFV	fish/ABS	CONJ	2SG-eat-IPFV	vegetable/PL/ABS
	'are you eating fish or are you eating vegetables'				
b.	á-áɲún-í	ìsáp	kèrè	á-áɲún-í	ɛ̀mɔ̂ŋ?
	1SG-see-IPFV	boy/ABS	CONJ	1SG-see-IPFV	bull/ABS
	'Will you see boys or will you see bulls?'				

The sentences in (37) have N segments, also after the conjunction, which are: **éˬ djá** 'vegetable' and **ɛ̀mɔ̂ŋ** 'bull' that are core arguments of the verbs **é-ɲém-í** and **á-áɲún-í**, respectively. The two nouns serve as the object of the verbs in the second clause and consequently occur in the absolute case. Since the verbs in the first and second clause for both sentences are similar, the object NPs can be interchanged without interfering with the grammaticality of the sentences in (37). The coordinating conjunction **kèrè** is retained at the same position even after interchanging the two NPs in these sentences. However, this does not apply to NP components that are affected by different actions that are overtly expressed as is the case with (36) above where **kàné** cannot be swapped with **órè** without interfering with the meaning of the sentence. This is also the case

with sentences in (38) below. For both cases, the participants can be inaninmate objects, as with **éˈ djá** 'vegetables', or animate forms, e.g. **ìsáp** 'boys' or even a reprentation of places such as **òré** in (38a).

When a declarative form is changed into an interrogative structure, the different coordination segments are retained. No question word is involved though the sentence is said with a rising intonation.

38. a. á-ɲún-ò-sí kèsí kàlípàsjà kèrè é-bóljá-té òré
3-see-REC-PL 3PL/NOM church/SG CONJ 3-play-PL home/ABS
'they meet in church or they play at home?'

b. í-bòè nèsì kàné kèrè á-lós-í kàmà kà ɟáɟá òòkò?
3SG-sit 3SG/NOM here CONJ 3-go-IPFV there PREP aunt/ABS our
'will (s)he be staying here or (s)he will be going at our aunt's (house)?'

Apart from rising intonation that apply to these sentences in speech, coordination of clauses in (38) is done the same way as those in (36) and (37) above.

10.3.2 Clause chaining

The language also makes use of clause chaining in coordination. Matthews (1997: 55) cites clause chaining as a variety of constructions in which clauses are linked in ways unlike those characteristic to European languages. Clause chaining is a common feature among African languages, especially SOV ones. Schroeder (2014) supports the view that semantically, the non-finite clause is morpho-syntactically dependent and semantically independent and is regarded as a hybrid between coordinate and subordinate; hence, she refers to these clauses as *medial clauses* following Haiman (1987) terminology. Clause chaining characterises non-finite clauses that show operator dependencies; where all the actions are set off by the first verb in terms of tense and aspect. Consecutive markers are attached to non-finite verbs to express events which occur in a chronological order. The verbs do not express a specific time orientation but instead receives this from the finite verb.

Clause chaining can either be marked by the morphemes **ka-** or **ko-** as will be shown in (39) and (40) below. All the objects occur or are presumed to occur after the verbs, where the first clause is finite while the second is non-finite clause.

39. a. á-dòkù ètógó kà-gwèlàr
1SG-build:PAST house/ABS CONS-sell
'I built the house and sold (the house)'

b. é-péé ékúrùdìdì kà-kɨ̀nàm
3SG-roast:PAST maize/ABS CONS-eat
'(s)he roasted the maize and ate it'

c. é-bèrà-tà álàrò kà-kìràà ékúrùdìdì
3-clear:PAST-PL field/ABS CONS-plant maize/ABS
'they cleared the field and planted maize'

The action expressed by the first clause relates to that which is expressed on the second clause in all the sentences linked by a clause chaining device, **ka-**. Interchanging the two clauses leads to ungrammatical sentences.

Further, clauses coordinating attributes or states can be linked by a clause chaining device **ko-** that is marked on non-finite clause. Consider example (40) below:

40. ébárítí è-kàmʊ̀ràn, kò-pálípálí-té à-mùì
rich M-father.in.law/NOM CONS-poor-SM F-sister.in.law/NOM
'the father-in-law is rich and the sister-in-law is poor'

The events described by the two clauses (e.g. in 40) are logically related. The two clauses are separated by a pause in speech while in writing; a comma is used to mark the pause. Two different subjects are involved, i.e. **è-kàmʊ̀ràn** and **à-mùì**.

Predominantly, clause chaining is used for descriptions of sequential actions. It is used in talking about events in the past, mostly narratives. In this case, it differs from other verbal constructions in being neither of independent nor of subordinate clauses. The sequential actions are expressed by a finite verb followed by a series of dependent verbs. The finite verb always occurring at

sentence-initial position carries tense, aspect and mood whereas subsequent verbs have clause chaining prefixes which signal operator dependence on the finite verb. Clause chaining in constructions of multiple verbs is illustrated in example (41) below:

41. à-lòsìt ɔ̀tárɔ̀nî, kò-gwèlì ákírjà, kò-màsì áɲónó kò-ìkàrì òré
3SG-walk town CON-buy flour CON-drink beer CON-go home
'he went to town, he bought some flour, he drank some beer, and he went home'

Notice the repetition of the **ko-**, a clause chaining morpheme with the past tense tone marking on each new verb. The sequence of events is indicated by verbs which act as a single predicator with the prefix **ko-** which applies to both class 1 and class 2 verbs. The verbs are quasi-coordinative as they are syntactically dependent, because of the tense, but semantically they are independent; expressing an independent idea.

10.3.3 Subordination

Ateso has subordinate constructions consisting of adverbials and conditional constructions. Adverbials are presented in section 10.3.3.1 while conditionals are discussed in section 10.3.3.2.

10.3.3.1 Adverbials

Adverbial clauses are important components in Ateso sentences as they mostly serve to expand the meaning of the main clause. They are used to express, e.g. reason-result relationship and contra-expectation. In Ateso, subordination is marked by adverbial clauses that are either post-posed or pre-posed to the main clause in a sentence.

Clauses for reason-result are linked by a conjunction **nààré** which closely translates to 'because'.[48] The conjunction links the two clauses that have two meanings; the first is that of reason and the second, the adverbial, is that of result as is the case with (42) below.

42. a. à-lòsì ó-sòmèrò nààré àmàmɔ̀ á-tjàkùn(i)
3-go:PAST LOC-school/LOC CONJ NEG 3-choice
'(s)he went to school because (s)he had no choice'

[48] Though these clauses are linked by a conjuction, they are adverbial clauses because they have the function of adverbials; that means, attributing to the meaning of the main clause or be in adjunct position to the main clause.

b. ká-áɲú-té nésì nààré é-jàsì k=ílàcètà kón
1PL-see-PL 2SG/ABS CONJ 3-have INST=key your
'we need to meet him because he has your keys'

The main clause for the two sentences in (42) occurs first followed by an adverbial clause. The adverbial clause is all the part from **nààré** to the end of each sentence.

The language also has a conjunction **àtà kèrè** 'although' that can be used to link two clauses that express contra-expectation. This is illustrated by the examples in (43).

43. a. í-làtòkì émòɟòŋìtì àtà kèrè ádèkà
3SG-visit:PAST old.man/ABS CONJ CONJ sick
'(s)he visited the old man, although he was sick'

b. kí-rám-ákín sjò àtà kèrè kí-ɲèmìt ákìrìŋ
1PL-forgive-DAT 1PL/NOM CONJ CONJ 1PL-eat meat/ABS
'we will be forgiven although we ate the meat'

c. màmʊ̀ ìjò kítúbí àkìŋìtò kòn, àtà kèrè kícòò ìjó
NEG 2SG/NOM pass exams/ABS your CONJ CONJ bright 2SG/ABS
'you will not pass your exams, although you are bright'

The conjunction **àtà kèrè** 'although' sets off the subordinate clause in (43a) and (43b). Example (43c) is a negated subordinate sentence. Both the main clause and the adverbial clause have the same subject in the affirmative and negative sentences.

Clauses can also be connected semantically by a subordinating conjunction **nès** 'so'. Though the marker is near similar to the 3SG, they are unrelated and none of the two is an etymological origin of the other. The resulting sentences linked by this marker have two clauses with a cause-effect relationship; where, the action described by the first clause leads to the event presented in the second clause.

44. a. á-pùs-àr èòŋ nès àjárí àpɔ̀rɛ̀í nù
1SG-fall:PAST-IT 1SG/NOM CONJ have scar/ABS this/PL
'I fell, so I have these scars'

b. é-mòŋ-ì-tè kèsì nès ì-ɲèkìn-è-tè kó-lòmètè tómà
3-cry:PAST-IPFV-PL 3PL/NOM CONJ 3-left-IPFV-PL INF-enter PREP
'they were crying, so they were left to enter inside'

c. é-rjèb-ì ló-kàbàrèn-òn étèŋè nès àŋàmà íŋàmàtà kéré
3SG-suffer-IPFV M-barber-SG hunger CONJ eat food/ABS all
'the barber was (lit. suffering of hunger) hungry, so he ate all the food'

The first clause of the three complex structures in (44) occurs at sentence initial position and is followed by the second clause which occurs after the subordinating conjunction. The verbs in both clauses have the obligatory person inflectional marker though an overt noun or pronoun subject can occur in the first clause, as in (44a) where the 1SG is overtly expressed. The inflectional marker in the verb in the first clause is the same as that of the verb in the subordinate clause as they mark different subjects in the two segments.

Furthermore, the subordinating conjunction **nès** can be used to link clauses that express means and result. Consider examples in (45).

45. a. á-sòmàè ká-gɔ̀gɔ̀ŋ nès átùbjò àkìŋìtò
3-read:PAST PREP-hard CONJ pass:PAST examination/ABS
'by studying hard (lit. with energy), so (s)he passed his examinations'

b. é-kòrjèn-è-tè pàràn kéré nès á-dàùnà-tà ákòrù àmànà kéré
3-dig:PAST-IPFV-PL day all CONJ 3-finish-PL digging farm/ABS all
'they dug all day, so they cleared the whole farm'

Negative forms for sentences with subordinating conjunction **nès** occur in a similar way as the positive forms. Conversely, negative sentences often begin with the negator word **màm(ʊ̀)**. The subject in the negative sentence occurs pre-verbally, but must be preceded by the negator which occurs at sentence initial position.

46. a. màmʊ̀ á-pùsàr nés á-màmàr ápòrèí k=éòŋ
NEG 1SG-fall:PAST CONJ 1SG-not.have scar/ABS PREP-me
'I did not fall, so I have no scars on me'

b. màmɔ̀ èòŋ á-gòlòk-ìt ékèkì nès á-pòsèrè èòŋ
NEG 1SG/NOM 1SG-close-PFV door/ABS CONJ 1SG-beat 1SG/NOM
'I did not close the door, so I have been beaten'

c. màmɔ̀ Okelo étèŋè nés màmɔ̀ ákì-ŋàm íŋàmàtà kéré
NEG NP hunger CONJ NEG INF-eat food/ABS all
'Okelo was not hungry, so he did not eat all the food'

An independent personal pronoun **èòŋ** is overtly expressed and fronted in the first clause in example (46b) for focus creation.

10.3.3.2 Conditionals

This type of sentences involves two clauses, that is, the conditional clause (also known as protasis) and the consequence clause (apodosis). The conditional morpheme **ko-** is prefixed to the verb in the conditional clause, e.g. **kó-ɟàsì** in (47) below.

47. a. kó-ɟàsì k=àbòléí tɔ́n à-gwél èkítàbó
COND-have:PAST PREP=money then 1SG-buy book/ABS
'if I had money then I would buy a book'

b. kó-ɟásí k=àbòléí tɔ́n è-gwél èkítàbó
COND-have PREP=money then 3SG-buy book/ABS
'if (s)he has money then (s)he will buy a book'

The verb in the consequence clause occur with different personal markers; dependent on the S that it marks. For instance, the second verb in (47a) and (47b) have prefixes for 1SG and 3SG, respectively.

In the concessive conditionals, the apodosis indicates a condition that would seem to be opposed to the statement made in the consequence clause. Concessive conditionals are marked by the same morpheme as those marking general conditionals. The difference is, for concessive conditionals both verbs in the two clauses have a conditional marker.

48. a. kó-bóí íjò kàné màmʊ̀ kó-ájʊ́n nèsí
COND-sit you/ABS here NEG COND-eat him/ABS
'even if you sit here, you will not see him'

b. kó-móɲó íjò màmʊ̀ kó-ínákín íjò àmɔ̀t(í)
COND-cry you/ABS NEG COND-give you/ABS pot/ABS
'even if you cry, I will not give you the pot'

For the sentences in (48), the negative particle **màm(ʊ̀)** follows the apodosis clause, and precedes the consequence clause in concessive conditionals. The conditional morpheme **ko-** is marked on both the first and the second verb in both sentences. Thus, in (48a) the first and the second verb are realized as **kó-bóí** and **kó-ájʊ́n**, respectively, while the first and second verb in (48b) occur as **kó-móɲó** and **kó-ínákín**, respectively.

10.3.4 Focus marking

Cleft constructions are used for contrastive focus, that is, to identify a known entity in contrast with other possible entities. The language uses clefting as a syntactic corollary of pragmatic strategy. Cleft constructions consist of cleft NPs and a relative clause.

49. a. é-kìtàbó l-é-sòmàè è-kìljòkìt nès lò
N-book/ABS REL-3SG-read:PAST M-man/NOM CONJ this
'this is the book that the man read'

b. étwàn l-í-tìsìlàn-ò nès lò
person/NOM REL-3SG-punish:PAST-REC CONJ this
'this is the person that was punished'

Taking (49a) as an example, there is a presupposition that 'a book' selected from a set of books was read by someone who is known to the speaker and the addressee. Sentence (49b) points at a particular 'person' identified from a group of people that received the action of the verb. The corresponding forms of negated cleft sentences will appear as follows:

50. a. mèrè ékìtàbò l-é-sòmàè è-kìljòkìt nès lò
NEG book/ABS REL-3SG-read:PAST M-man/NOM CONJ this
'this is not the book that the man read'

b. mèrè í-sàp lù-ì-nèrà étwàn
NEG M/PL-boy/ABS REL-3-talk:PAST person/NOM
'they are not the boys that the person talked about'

Sentence (50a) presupposes that a 'man' read 'a book' other than the one being referred to. The same applies to (50b) which presupposes that there are some 'boys' that 'the person' talked about.

To sum up the discussion on complex clauses and sentence structures, Table (10.1) provides the different morpho-syntactic strategies that are used to link complex structures.

Table 10.1: Complex clause, sentence structures and dependency-marking strategies

Type	**Morpho-syntactic linkers**
Complex clauses: relativisation	lo-, na-
complementation	be, ebe
simulatives	bala
superlatives	kama ka
Coordination	kere
Clause chaining	ka-, ko-
Subordination: adverbials	naare, ata kere, k-, nes
conditionals	ko-

10.4 Conclusion

This chapter was about grammatical structures that are used by Ateso speakers to package information and make assertions about the world. Ateso is a VS/VO language whose basic word order exhibits internal expansion through various means. The internal structure is made up of the verb and either of the constituents: NP, PP, AP or ADJP. The basic clause types in the language are: declaratives, imperatives and interrogatives.

Intransitive verbs allow only one argument, namely the subject which appears in a post-verbal position while transitive verbs take two arguments in Ateso clauses. Subject prefixes constitute an argument of the clauses. Ateso's ditransitive clauses allow three arguments, namely a subject, an indirect object and a direct object. A number of ambitransitive verbs have also been identified.

Five major strategies are used to combine simple structures into complex forms. The strategies are co-ordination, clause chaining, complementation, use of advebials and relativisation. The different semantic roles and expansion potential is dependent on the valency of the verb, i.e. the morphological processes on the verb affect the structure and order of arguments in a clause.

Chapter Eleven: General conclusion

This chapter provides a summary of the linguistic discussions of the listed components of grammar as they occur in Ateso. The chapter pays exclusive attention to the Ateso data within the light of broader, cross-linguistic claims on different features such as: vowel harmony, case, alignment and syncretism. Undoubtedly, there were limitations which may have resulted from resources available for this study. The present chapter thus also highlights the linguistic work that still needs to be done.

The description of Ateso was based on data collected mainly through direct elicitation and participant observation. Generally, the purpose of this study was to provide a full account of the Ateso grammar by devoting attention to special features that are core to the language. Using the structural framework, the three prime components of grammar, that is, phonology, morphology and syntax were presented in a format that is easily accessible to many. The description of these features indisputably broadens linguistic studies on Eastern-Nilotic languages and explicitly on Ateso, a long neglected language spoken by a large population.

Though Turkana, Toposa, Maasai and now Ateso have been comprehensively studied, descriptive data from languages such as Karamojong', Dodoth, Jie, Jiye, Donyiro, Bari, Mondari, Kakwa, Ngyepu, Nyanggwara, Lotuko, Ongamo and Kuku are insufficient for discussing various cross-linguistic phenomenon in Eastern-Nilotic branch. Regardless of the inadequate descriptive material in the listed languages in this branch, the work on Ateso provides information to linguists and other scholars engaged in comparative language typology that can be used for explanation of various cross-linguistic features in Nilotic languages. Overall then, this work is an important addition to the literature on Nilotic languages.

Chapter one and two gave some details regarding the present state and the historical background of the language. It provided contextual knowledge that was relevant to the discussion of the phonology, morphology and syntax of the language.

Information about the phonological system and phonological processes was discussed in the phonology chapter. This included analysis of both the segmental and supra-segmental features of the language. Distinctive sounds in the language were established mainly through minimal and

near minimal pairs. Looking at the data, a fairly wide inventory of sounds was found in the language. Two major classes of Ateso sounds were established, i.e. vowels and consonants.

Vowels, occurring either as single units or as a sequence of two distinct or identical forms, occupy syllable nuclei positions. In addition, the nucleus may be occupied by nasalized monophthongs in nasalized contexts even though there were no minimal pairs which would show that nasalization was contrastive within vowels.

The pattern of distribution of vowels exhibited a type of typological variation that was different from the languages in the Teso-Turkana group. For instance, the language has retained a more symmetrical system consisting of ten voiced vowels and an equivalent number of corresponding voiceless vowels. Apart from the [-voice] quality, all voiceless vowels had similar phonetic qualities as their corresponding voiced counterparts. Voiceless vowels carried floating tone and were confined at word final positions. As the present study was synchronic, the historical aspects of the devoicing of word final vowels were of little intrinsic value though it might have some insight to offer for future research.

The twenty oral vowel phonemes have distinct qualities and the features (high, back, low, round, voice and ATR) were required to describe them. Out of the six features, the most outstanding contrastive feature was the ATR quality. According to Casali (2008: 496), vowel harmony or assimilation based on the phonological feature [ATR] is a widespread phonological pattern in African languages of the Niger-Congo and Nilo-Saharan families. Some comparisons were made for intra-language dynamics with regard to the vowel harmony system in the Teso-Turkana group. The phonological review below reveals that Ateso shares some basic ATR features with Toposa and Turkana. Nevertheless, the discussion was not exhaustive and specific future studies are proposed in order to explore the origin and evolution in ATR system within the African language families.

What was established for Ateso as the tenth vowel (with a [+ATR] quality) is a vowel phoneme that was lost in most languages in the Bari group.[49] Therefore, the /a/ in Ateso is not a neutral

[49] A claim for the existence of the tenth vowel in most languages in the Bari group was previously cited by Yokwe (1987: 10). Toposa and Turkana, like many languages in the Niger-Congo and Nilo-Saharan families thus do not have a contrastive form for the [-ATR] /a/. In these languages, /a/ co-occurs with both [+ATR] and [-ATR] vowels

vowel as it was claimed for Toposa (e.g. Schroeder & Schroeder 1987), but it is the corresponding [-ATR] counterpart of the tenth vowel. The ten voiced vowels in the language were thus divided into half by discernable laws of vowel harmony, consisting of five [+ATR] and five [-ATR] vowels. The ATR value of extensions always occurred following the values of vowels of a word root. However, there existed some exceptions where harmonising affixes caused root vowels to change their ATR value to be the same as that of the affixes. The imperfective, passive and reciprocal voice markers have dorminant [+ATR] features. These vowels caused a change in the ATR value of [-ATR] vowel root values to be [+ATR]. A further challenge on the universality of features supported by theoretical claims on the ATR harmony in Nilotic languages was the middle vowel assimilation strategies. Uncharacteristically, roots consisting of mid-vowels assimilated to the itive extensions that have mid-vowel peaks.

An inventory and analysis of Ateso consonant sounds was also presented in the phonology chapter. Eighteen single consonantal phonemes were posited for Ateso and presented in IPA format. The consonant inventory included two voicing types: voiceless and voiced. There were four places of articulation for plosives, two places of articulation for fricatives and glides, four places of articulation for nasals and one place of articulation for trills. Together with vowels, the consonants are segments of a syllable though there exist vowel only syllables.

There are two types of syllables attested for Ateso, namely: open and closed. Syllable onsets were either filled by consonants only or consonants plus glides. The coda was either left open or filled by a sonorant consonant. Vowels constituted the peak of a syllable unit: peaks consisted of a [+ATR] or [-ATR] vowels only or a sequence of either two [+ATR] or [-ATR] vowels. The minimum syllable consisted of one vowel. Syllables occurred in nine shapes: V, VVC, CV, CVV, CVC, CVVC, CGV, CGVV and CGVC. Three most common syllable structures attested in the language are V, CV and CVC.

Contiguous consonants with the CC shape are not allowed in the native Ateso words. When a sequence of consonants occurred in native Ateso words, an epenthetic vowel was inserted between them to syllabify the disallowed CC. Therefore, a C(C)VC syllable was licensed only

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in a word. To make clear the position of /a/ in other languages in the Teso-Turkana group, future discussions on the topic will suffice.

when the C in bracket was a glide. However, sequences of nasal + consonant stops found in borrowed words, mainly Kiswahili, were possible since they had a morphemic boundary and were interpreted as separate units. This type of CC sequence was only allowed where the hormoganic nasal followed a [-continuant] obstruent. In this case, the nasal part formed the coda of the initial syllable while the obstruent became the onset component of the following syllable. Based on the morpho-tonal criterion, the pre-nasalized stops were thus pronounced as separate phonetic units. A single syllable or a combination of syllables formed a word.

Some lexical and functional words had the monosyllabic CV shape. Only four monosyllabic words were attested in the language, as exemplified in the words **na** 'this', **nu** 'those' and **ka** a 'conjunction particle; also, serving multiple functions such as coordination'. All the monosyllabic words of this shape were marked by a low tone. Consequently, words existed in five syllable types, namely, monosyllables, disyllables, tri-syllables, quatri-syllables and penta-syllables. Word final position was occupied by either [+ATR] or [-ATR] voiced or voiceless vowels. The phonological status for voiceless vowels is left open for future analysis.

Phonemic consonants appeared in different positions, that is, in initial, medial and word final positions. Most consonants appeared either word-medially or word-finally. All the consonants appeared in word median position. However, tones were not assigned on consonants but were marked on the vowels.

Tones are important components of the language. They play a distinctive/lexical as well as a grammatical function in the language. All the words carried a distinctive tone that was marked on the word peaks. At the grammatical level, tone distinguished tense and was also used to mark case. There are three tones in the language which were divided into two classes, i.e. register tones and contour tone. The register tones were identified as High and Low while the contour tone was High-Low. The High-Low, also known as a falling tone, is a combination of H and L tone mapped together on one Tone Bearing Unit (TBU). The High and Low tones was the most dominant, while falling tones occurring mostly at word-final positions were quite rare.

The practical orthography established by the Ateso Orthography Committee in 1964, was used as a basis and a few letters added to it. The aim was not to contest the established norm but rather to find the best means to represent speech patterns acceptable to speakers of the language and make

it easy to produce reading materials. A complete assessment of the established writing system of the language revealed that it is composed of 24 graphemes. The graphemes were made up of vowels and consonants. The spelling system represents the three dialects of Ateso, since, as already mentioned, there is no significant difference between the three dialects. The division of Ateso into three dialects probably is not significant as the variation is minimal.

The two major word classes in Ateso, just like in many other languages, are nouns and verbs. Other word classes include adjectives, adverbs and prepositions. Word classes varied along different parameters such as syntactic distribution and morphological possibilities. Based on their structure and distribution, lexical classes were subdivided into 'core' and 'periphery'. The classes had etymologically complex and simple structures. Nearly all the words in the different classes had prefixes, suffixes or both. The review of these classes as discussed in this thesis begun with the nouns.

So far, this is the only work that provides a broad overview of Ateso noun morphology. Morphologically, nouns consist of root and zero or more affixes. Number marking was productive both in plural and singular noun stems. A number of morphemes ranging from singular or plural suffixes to suppletion or both was used to mark nominal singulars and plurals. Based on the number marking patterns, nouns were classified into six groups (as is elaborated further below). Additionally, plural numbers were marked on nouns and verbs by separate suffix strategies that apply to either of the two word classes in the same clause.

Noun gender prefixes existed in two different formations, namely: vocalic gender prefixes and consonantal prefixes, i.e. prefixes containing a consonant and vocalic peak. Some nouns, especially the kinship terms that occur with bare roots (i.e. without gender prefixes), correlated with semantic gender in animates, distinguishing two genders, masculine and feminine.[50] In this case, specific words were used exclusively for pairing gender. Tonal representation of noun gender prefixes and person/number prefixes on verbal complex varied depending on case and tense for nouns and verbs, respectively.

Compared to Turkana and Toposa, there was a case of syncretism in Ateso where neutralisation of formal gender distinctions occurred. For instance, sometimes feminine singular nouns became

[50] Semantic sources for gender terms also include some animals and birds.

dimunitive plural, which otherwise should remain feminine as is with Turkana and Toposa. Likewise, there were several interesting instances of semantic widening in allocation of borrowed nouns as feminine or masculine nouns. Since a diachronic study of the changes that have occurred in Ateso is beyond the scope of this thesis, the study proposes use of semantic mapping framework as presented by Haspelmath (2000) to help predict diachronic changes in the language. The framework has the advantage of clearly indicating that some changes presuppose others.

The different inflectional paradigms used to group nouns in the language were based on a tripartite number system, which are the plurative, singulative and replacive marking. In addition, there were two more processes of varying degrees of productivity which do not fit in the tripartite system and mono-class. Firstly, there exists a group of mono-classes i.e. nouns that do not pair either through the singular/plural or feminine/masculine/diminutive strategy when in isolation. Singularity or plurality was expressed by the same form of these nouns. Secondly, there were groups consisting of irregular and semi-irregular nouns.

Also, semantic meaning may be obtained from two or more lexical units serving an autonomous function. Since Ateso has undergone change with time, some members of different groups have fused with each other or have moved to different groups. The changes in Ateso noun groupings are ongoing and are open to research.

The two processes that nouns undergo are inflection and derivation. These processes affected the noun stem and caused segmental and supra-segmental changes. The diminutives and augmentatives, for instance, were derived from basic nouns using the segmental and supra-segmental strategies. Structurally, the tonal marking on the noun had the effect of deriving the noun from other noun groups for both cases. The diminutive was more productive than in the remaining Teso-Turkana languages. This further confirmed the shift towards the noun class system.

Nouns or pronouns are core arguments that follow the verb in finite structures. Predicate nominal elements are modified by various modifiers. The functional classes for the Ateso nominal phrases consisted either of a demonstrative, an adjective, numeral or an adverb plus noun. Out of the four modifiers, demonstratives were the most prevalent and were used to define the

participant status with regard to a deictic centre. Proximal and distal demonstrative constituents appeared in the immediate right of the head noun. They were used to contrast referents in a proximate and distal plane relative to the speaker, addressee and the animate or inanimate component being referred to. Their basic role in the language is pointing. Ultimately, all the word categories showed constraint on ordering, with the head nouns always preceding its modifiers.

Since Ateso has a concord agreement system, the nominal modifiers were directly post-posed to nouns without an overt marker of dependency. However, the NP order of head-modifiers varied with the use of 'each' which preceded the nominal form. In cases where the head noun and a determiner were detached from each other, the associative marker was used to link the two constituents. The NP can be summarised in the following phrase structure:

NP ⟶ *(INDEFINITE QUANT) N (POSSESSOR) (QUANT/NUM) (ADJ)*

The brackets indicate that the constituents therein are optional and do not have a fixed order. It is not possible to propose a fixed order for the NP's peripheral elements since they are fluid and can occur in any position following the head noun.

Ateso has the following pronouns: personal pronouns, possessive pronouns, interrogative pronouns and relative pronouns. Most personal pronouns existed in singular and plural forms. They had an anaphoric relationship with the NP as the two constituents freely substituted for each other.

As it was elaborated in the discussion of pronominal alignment/cross-reference marking on the verb, there was the occasional neutralisation between forms. This was due to the fact that agreement goes with the object in the case of first and second person pronoun. Essentially, there are two pronominal alignment systems in Ateso, i.e. the marked nominative on independent pronouns and the hierarchical system of person marking.

Verb morphology offered a richer range of possibilities than that of the nouns. The verbs do not form meaningful units in root form and must occur with agreement prefixes. Inflectional verbal prefixes are portmanteau morphemes that marked both person and number. Verb classes were associated with person prefixes, with a few variations noted in class 1 and class 2 prefixes.

Further, verbs agreed in person and number with their subjects demonstrated in the inflectional prefixes. The agreement was obligatory, but an overt subject NP or pronoun was optional in basic V(S) clauses. Inflectional prefixes thus co-occurred with co-referential full NPs or pronouns. Gender was not marked on verbs. Plural forms were additionally expressed by way of the suffix **-te**, **-tu**, **-si**, **-ta** and **-to** attached to the verbs. Phonetically, the vowel on the plural marker was underlyingly weak and was subject to root control. For that matter, they always shifted their ATR quality to be the same as that of the root making a range of [+ATR] counterparts of the above plural nucleus possible. Most of the verb roots were monosyllabic and had a CV or CVC shape.

There was a variety of possibilities for deriving verbs where different kinds of suffixes were employed to form derivative verbs. Verbal derivative meanings found in the language were causative, ventive, itive, dative, instrumental, iterative and voice. The derivational affixes had at least two allomorphs whose vowel segments depended on the ATR quality of the verb stem that they were attached to. The iterative is marked by reduplication of the verb root; usually expressing frequentive or repeated meaning. The passive together with active were the two main voices found in the language. Passives were expressed by the morphemes **-aɪ** and **-oi**. The subjects of passive constructions were always omitted and objects moved to core positions. Basically, the passive and reciprocals are marked by suffixes whereas the active is the unmarked.

Also, there were instances of semantic widening and mapping of cognitively related concepts. The derivational forms such as the ventive and itive, for instance, not only signalled motion but were also used to derive metaphorical meaning. Future studies in this respect will benefit from Haspelmath's proposed semantic mapping strategies.

Verbs were also inflected for tense, aspect and mood. Though each constituent occupied a particular position, distribution and function; tense, aspect, and mood were interconnected to form an inflected whole verb structure whose nucleus was the verb root. Tone assignment in the verbal system was significant in marking tense. There are two contrastive tones: High and Low tones that are used grammatically to mark tense. Ateso distinguishes between past and non-past tenses: the past tense is marked by a low tone on the syllable peaks of the verb root, while the non-past is marked by a high tone on the verb root nucleus. The non-past subsumes the present, continuous aspect in the present and the future.

With regard to aspect, the language distinguishes between the following: imperfective, habitual, perfective and perfect. The the imperfective, habitual and perfective are marked morphologically by the morphemes **-i** or **-e**, **-enen** and **-it**, respectively while the perfect aspect is marked by **a-**. The imperfective and the perfective were the two main aspects in the language. The two aspects combined differently with verbal stems to make a whole structure within which each of the verbal constituent had a particular position, distribution and function. For instance, the IPFV morpheme **-e** was used whenever there was the presence of the habitual, ventive or itive extensions in the derived verbs that they inflect. Aspect combined with tense to situate the action of the verb in time.

Ateso has the subjunctive and the conditional mood. Overall, verbs together with all the components attached to it are treated as one unit. The aspect and mood (together with tense) features do not change the clause structure since they are inflectional.

While there exist structural differences between Ateso and other Eastern Nilotic languages, most claims made by linguists on the similarity of features such as the VS/VO clause structure have been justified by data from Ateso. Just like all the Eastern and Southern Nilotic (with exceptions of Bari and Datooga, which are SVO), Ateso belongs to a VSO language group on the basis of traditional typological classification proposed by (e.g. Greenberg 1963, Baker 2001). This thesis provides data and analysis that is important for future assessment of the syntactic relationship of Ateso and other Nilotic languages.

In an Ateso clause, the functions of subject and object are carried by the post-verbal position which correlates with the inflectional maker on the verb. The NP occupying the two positions may have an N Num/demonstrative and N Adj/Numeral (modifier) pattern in its constituent order. The different post-verbal realisations in the Ateso NP grammar are closely related to Turkana and Toposa and possibly other languages in Eastern Nilotic. The grammatical relations are indexed on the verb. The structural position of post-verbal elements has been an issue of significant interest.

As a VS/VO language, Ateso's basic clause could be made up of the verb, an NP (for subject) and NP (for object). A pronominal subject was an optional constituent in most clauses though its suppression sometimes affected the semantics of a clause or a sentence but not its

grammaticality. Tone was used to mark case in the subject and object constituents. Subjects were marked nominatives while objects occurred in absolute case. Adverbial order was constrained at clause-final positions in basic structures where, addition of other constituents pushed it away from the verbal unit. Adverbials were positioned sentence medially in sentence structures. Moreover, basic structures consisted of non-verbal sentences (at least at the surface level). The non-verbal sentences had the shape PRON NP, where the PRON took the topic function while the NP took the predicate function.

The possible basic sequences in the language can thus be summarised as: VS, VSO, VSOO, VO(S) or VSOX. In the sequence with two objects, the first O is the recipient, and the second O is the patient. Other superfluous constituents such as the PP and the AP which may occupy the X position can also be suppressed without affecting the grammaticality of the clause. The order applies to both declarative and at least one type of questions.

The language has two types of questions namely, content questions and polar questions which were signaled by two strategies. Content questions used morphological devices (i.e. interrogative words) located in the clause-initial position while polar questions, also known as yes/no questions, had the same syntactic order as declarative clauses and were only distinguished from declaratives by a rising intonation.

Unmarked sentence structures had VO/V(X) structure; with X serving the complement function in the sentence, i.e. sentences consist of two clauses. For complement clauses, the complement part always carried the predicate frame. A possible sentence structure occurred as follows:

CLAUSE-1 CONJ CLAUSE-2

V COMPL

Deviation from the canonical word order was also permitted. Interrogative clauses, for instance, had variations in the placement of constituents, with the interrogative pronoun appearing before the noun. Supplementarily, the clause structure could be altered by valency increasing and decreasing devices. The causative, dative and instrumentals were derivation devices that increased the valency of the verb while the passive caused a decrease in the number of valencies.

This study basically concentrates on the syntactic surface structure of the language. Further research on the deep-structure is recommended.

External mechanisms used to enrich the Ateso lexicon reflected the current socio-cultural realities. The continued contact of Ateso speakers with other language speakers has led to significant borrowing of words and some structural aspects. Loan words are adapted to native syllable structure using native Ateso sounds. Mostly, the V syllable (always a gender prefix in the case of nouns) was added to loan words at word-initial position to fit into Ateso's syllable pattern. Ateso speakers' contact with speakers of other languages (e.g. English, Luganda, Lubukusu, Samia etc.) continues to increase the number of loan words. Loan words are used to fill in the deficits in the language though sometimes they were used side by side with an Ateso term. Such is the case for a word **àɲònò** 'beer' and **èbjâ** 'beer'. The former is now used in reference for traditional beer while the latter is used to refer to manufactured beer. Further detailed study on loan words in Ateso may yield evidence of the changing language contact phenomenon.

It is hoped that the grammar provides a wide spectrum of grammatical components of Ateso that will be useful to linguists who wish to make a deeper and wider exploration of the language. The grammar will also be useful for comparative linguists who want to compare Ateso with other languages.

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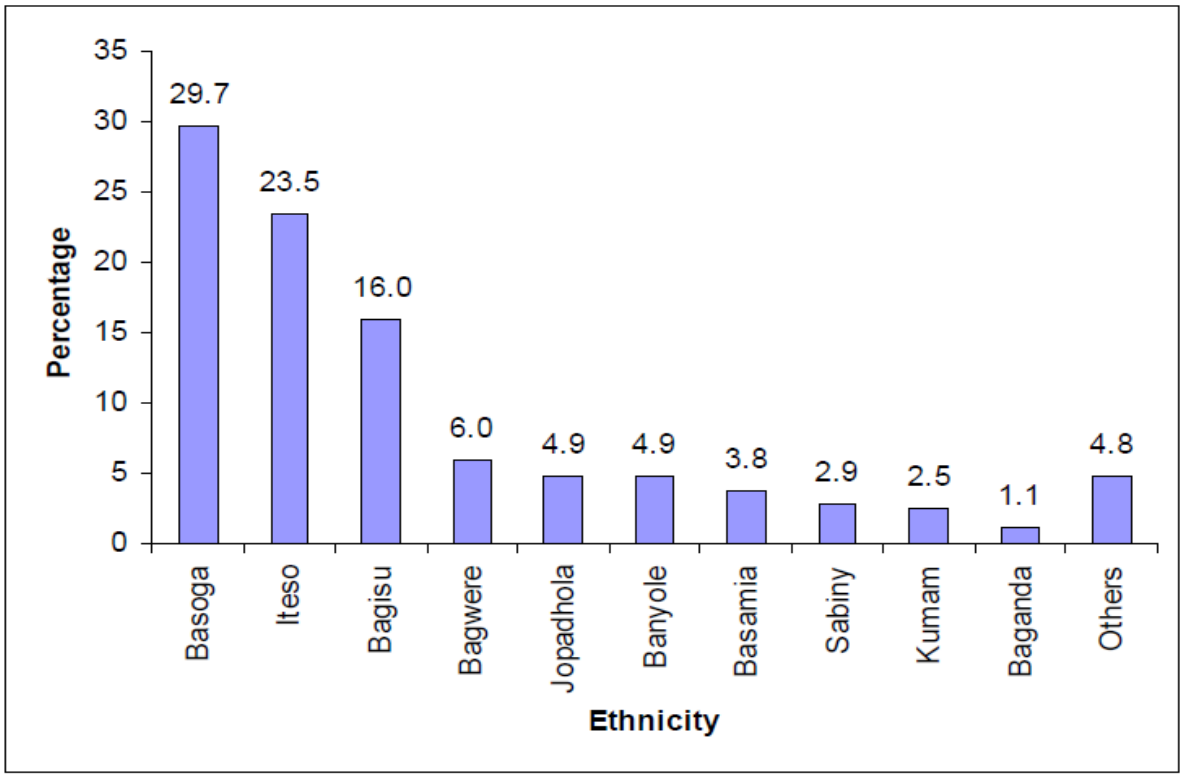
Appendices

Appendix 1A: Distribution of ethnic groups in Eastern region, Uganda



(Adapted from UBOS 2002: 24)

Appendix 1B: Uganda's ethnic groups' figures according to the 2002 census[51]

Ethnic group	Population estimates (%)
Baganda	16.9%
Banyankole	9.5%
Basoga	8.4%
Bakiga	6.9%
Iteso	6.4%
Langi	6.1%
Acholi	4.7%
Bagisu	4.6%
Lugbara	4.2%
Bunyoro	2.7%
Other	29.6%

Appendix 2: Examples (dialects)

A: Tororo and Teso dialects

Tororo dialect	Teso district dialect
aki-nyam (akɪ-ɲam)	ai-nyam (aɪ-ɲam)
to eat	to eat
aki-lip (akɪ-lɪp)	ai-lip (aɪ-lɪp)
to pray/beg	to pray/beg
Imperatives	
konyam (koŋam)	onyam (oŋam)
Eat!	Eat
kilip (kɪlɪp)	ilip (ɪlɪp)
pray/beg	pray/beg

[51] There are 65 indigenous groups recognized by the Constitution of the Republic of Uganda, Schedule 6.

Nouns

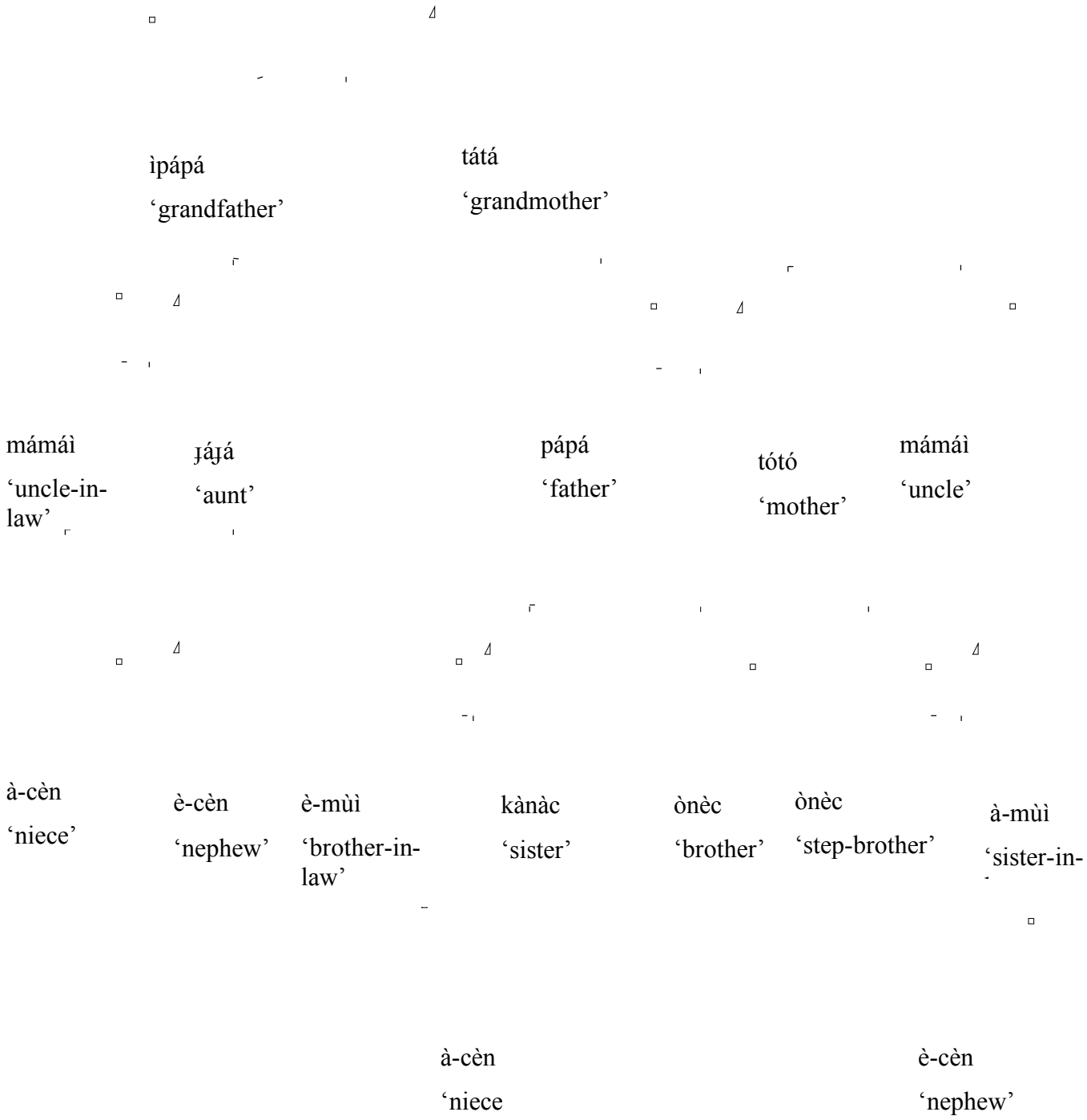
ekitabo	(ekitabo)	eitabo	(eitabo)
a book		a book	
ekitoi	(ɛkɪtɔɪ)	eitoi	(ɛɪtɔɪ)
a tree		a tree	

(Otaala, 1981: 6)

B: Examples for dialect classification (according to Myers-Cotton & Okeju (1973))

	Ateso Lokathan	**Ateso Orom**	
1.	àí-ɲám	àkí-ɲám	'to eat'
	INF-eat	INF-eat	
2.	àí-lòs	àkí-lòs	'to walk'
	INF-walk	INF-walk	
3.	àí-mòŋ	àkí-mòŋ	'to cry'
	INF-cry	INF-cry	
4.	àí-ɟòtòr	àkí-ɟòtòr	'to sleep'
	INF-sleep	INF-sleep	
5.	àí-kwènà	àkí-kwènà	'to laugh'
	INF-laugh	INF-laugh	
6.	àkí-ɟòr	àkí-ɟòr	'to talk'
	INF-talk	INF-talk	

Appendix 3: Family tree



Appendix 4: A set of four verb roots for all persons and person combination, including subject-object combination

Class 1

Intransitive		
Person	**SG**	**PL**
1	á- lɛ́ɟ-í 1SG-dance-IPFV 'I am dancing'	ká- lɛ́ɟ-í 1PL-dance-IPFV 'we are dancing'
2	ɛ́-lɛ́ɟ-í 2SG-dance-IPFV 'you are dancing'	ɛ́-lɛ́ɟ-í-tɛ́ 2-dance-IPFV-PL 'you are dancing
3	ɛ́-lɛ́ɟ-í 3-dance-IPFV '(s)he is dancing'	ɛ́-lɛ́ɟ-í-tɛ́ 3-dance-IPFV-PL 'they are dancing
Transitive		
1	á-dák-í àmɔ̀t(í) 1SG-carry-IPFV pot/ABS 'I am carrying a pot'	ká-dák-í àmɔ̀t(í) 1PL-carry-IPFV pot/ABS 'we are carrying a pot'
2	ɛ́-dák-í àmɔ̀t(í) 2-carry-IPFV pot/ABS 'you are carrying a pot'	ɛ́-dák-í-tɛ́ àmɔ̀t(í) 2-carry-IPFV-PL pot/ABS 'we are carrying a pot'
3	ɛ́-dák-í àmɔ̀t(í) 3-carry-IPFV pot/ABS '(s)he is carrying a pot'	ɛ́-dák-í-tɛ́ àmɔ̀t(í) 3-carry-IPFV-PL pot/ABS 'they are carrying a pot'
3>1	ká-ìnàk-ìt èóŋ àcúpà-í 3>1-give-IPFV 1SG/ABS bottle-PL/ABS '(s)he gave me bottles'	ká-ìnàk-ìt ɔ̃ní àcúpàí 3>1-give-PFV 1PL bottle/ABS '(s)he gave us bottles'

3>2	ká-ìnàk-ìt	íjò	àcúpà-í	
	3>2-give-IPFV	2SG/ABS	bottle-PL/ABS	
	‘(s)he gave you bottles’			
3>2	ká-ìnàk-ìt	ósì	àcúpà-í	
	3>2-give-IPFV	2PL/ABS	bottle-PL/ABS	
	‘(s)he gave you bottles’			

Class 2

Intransitive

1	ɛ́-líp-í	kí-líp-í
	1SG-pray-IPFV	1PL-pray-IPFV
	‘I am praying’	‘we are praying’
2	í-líp-í	í-líp-í-tɛ́
	2SG-pray-IPFV	2-pray-IPFV-PL
	‘you are praying’	‘you are praying’
3	í-líp-í	í-líp-í-tɛ́
	3-pray-IPFV	3-pray-IPFV-PL
	‘(s)he is praying’	‘they are praying’

Transitive

1	ɛ́-rʊ́m-í	àmɔ̀t(í)	kí-rʊ́m-í	àmɔ̀t(í)
	1SG-hold-IPFV	pot/ABS	1PL-hold-IPFV	pot/ABS
	‘I am holding a pot’		‘we are holding a pot’	
2	í-rʊ́m-í	àmɔ̀t(í)	í-rʊ́m-í-tɛ́	àmɔ̀t(í)
	2-hold-IPFV	pot/ABS	2-hold-IPFV-PL	pot/ABS
	‘you are holding a pot’		‘you are holding a pot’	
3	í-rʊ́m-í	àmɔ̀t(í)	í-rʊ́m-í-tɛ́	àmɔ̀t(í)
	3-hold-IPFV	pot/ABS	3-hold-IPFV-PL	pot/ABS
	‘(s)he is holding a pot’		‘they are holding a pot’	

3>1	kí-pòs-ì	èóŋ	kí-pòs-ì	ɔ̀ní
	3>1-beat-IPFV	1SG/ABS	3>1-beat-IPFV	1PL/ABS
	‘(s)he beat me’		‘(s)he beat us’	
3>2	kí-pòs-ì	íjò	kí-pòs-ì	ósì
	3>2-beat-IPFV	2SG/ABS	3>2-beat-IPFV	2PL/ABS
	‘(s)he beat you’		‘(s)he beat you’	

Appendix 5: Plural marking on the verb

Class 1	**Class 2**
a. á-nàŋè-tè 3-hit:PAST-PL ‘they hit’	a. é-sùkùŋà-sì 3-push:PAST-PL ‘they push’
b. á-àŋù-tù 3-see:PAST-PL ‘they have seen’	b. é-tìŋ-ì-tè 3-hold-IPFV-PL ‘they are holding’
c. á-kòtò-sì 3-want:PAST-PL ‘they wanted’	c. í-gír-í-té 3-write-IPFV-PL ‘they were writing’
d. á-màtà-tà 3-drink:PAST-PL ‘they drunk’	d. í-léɟ-í-té 3-dance-IPFV-PL ‘they are dancing’
e. á-lòsì-tò 3-go:PAST-PL ‘we went’	
f. ɛ́-mɔ̀ɲ-ìt-(t)ɛ́ 3-cry-PFV-PL ‘they cried’	

Appendix 6: A full paradigm of the perfect aspect marking

Class 1

a. á-sɛ̀ʊ̀ èòŋ
PRF-choose 1SG/NOM
'I had chosen'

b. á-sɛ̀ʊ̀ ìjò
PRF-choose 2SG/NOM
'you had chosen'

c. á-sɛ̀ʊ̀ òsì
PRF-choose 2PL/NOM
'you had chosen'

d. á-sɛ̀ʊ̀-tʊ̀ ònì/ìsjò
PRF-choose-PL 1PL(incl./excl.)/NOM
'we had chosen'

e. á-sɛ̀ʊ̀ nèsì
PRF-choose-PL 3SG/NOM
'(s)he had chosen'

f. á-sɛ̀ʊ̀-tʊ̀ kèsì
PRF-choose-PL 1SG/NOM
'they had chosen'

Class 2

a. á-gìr(ì) èòŋ
PRF-write 1SG/NOM
'I had written'

b. á-gìr(ì) ìjò
PRF-write 2SG/NOM
‘you had written’

c. á-gìr(ì) òsì
PRF-write 2PL/NOM
‘you had written’

d. á-gìrì-tà ònì
PRF-write-PL 1PL/NOM
‘we had written’

e. á-gìrì nèsì
PRF-write 3SG/NOM
‘(s)he had written’

f. á-gìrì-tà kèsì
PRF-write-PL 3PL/NOM
‘they had written’