



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Comparative analysis concerning morphological
structures in Dholuo“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Arts (MA)

Wien, 2022 / Vienna, 2022

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

UA 066 897

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium Afrikawissenschaften

Betreut von / Supervisor:

ao. Univ.-Prof. i.R. Dr. Gerhard Böhm

Dholuo, or simply Luo, a Western Nilotic language spoken mainly on the eastern shores of Lake Victoria in Kenya and in a small area of Tanzania adjacent to the Kenyan border, has a various set of modified forms of the nouns, used mainly in genitival constructions. The aim of this study was to determine how the sound changes apply in the nouns of this language, and possibly to determine categories of nouns which follow common patterns. The results of this first part of the work have been then compared with corresponding structures and processes in genealogically related languages: Shilluk, Anywa, Pāri and Acholi.

The analysis has been done mainly on the basis of the available documentation, which is unfortunately limited, especially regarding some of the mentioned languages. Furthermore, several elements of these languages don't have a homogenous interpretation, a sign that they were not exhaustively analysed yet. The support of a L1 speaker of Dholuo and some audio-visuals has contributed to better understand phonological aspects of this language. This study is concentrated on the substantive, in particular on the processes occurring in the formation of modified forms such as the plural and genitival constructions, the behaviour of prefixed and unprefixing noun, irregular forms, and the reflexes of sex-indicating elements in these languages, which otherwise don't have a grammatical gender.

The results have shown on one side similarities in the analysed forms confirming their common origin, but on the other hand also the development of different morphonemical processes which may vary in a larger or lesser degree from language to language. It has been as well observed, that particular features of Western Nilotic languages such as the distinction between intimate and non-intimate possession, or the *N/*K alternation between singular and plural forms, are diachronically losing their original function.

Das Dholuo, oder auch nur Luo, eine west-nilotische Sprache die vor allem an dem östlichen Ufer des Viktoriasees in Kenia und in einem kleinen angrenzenden Gebiet im benachbarten Tansania gesprochen wird, verfügt über zahlreiche abgewandelte Formen des Substantivs, die hauptsächlich in der Bildung des Genitivs erscheinen. Ziel dieser Arbeit war die Feststellung der lautlichen Änderungen, die bei solchen Prozessen stattfinden, und eine mögliche Klassifizierung der Nomina aufgrund gemeinsamer Verhaltensmuster. Folglich wurden die gewonnenen Ergebnisse mit den entsprechenden Erscheinungen in genealogisch verwandten Sprachen verglichen, nämlich Shilluk, Anywa, Päri und Acholi.

Die Analyse wurde hauptsächlich aufgrund der verfügbaren Dokumentation durchgeführt, die aber begrenzt ist, vor allem in Bezug auf manche der erwähnten Sprachen. Darüber hinaus haben viele Elemente dieser Sprachen keine einheitliche Interpretation, ein weiteres Zeichen dafür, dass sie noch nicht vollständig analysiert worden sind. Die Unterstützung eines L1-Sprechers des Luo sowie manche audiovisuellen Medien waren sehr hilfreich um phonologische Aspekte dieser Sprache besser zu verstehen. Im Fokus der Untersuchung steht das Substantiv, insbesondere die Analyse der Prozesse die bei der Bildung abgewandelten Formen stattfinden, wie Genitiv- und Pluralbildung, das Verhalten präfigierter und unpräfigierter Nomina, irreguläre Formen, und die Erscheinung geschlechtanzeigender Elemente in diesen Sprachen, die kein grammatisches Genus aufweisen.

Die Ergebnisse zeigen einerseits Ähnlichkeiten der analysierten Formen, die auf gemeinsamen Ursprung weisen, und andererseits die Entwicklung von Sprache zu Sprache mehr oder weniger verschiedenartiger morphologischen Prozesse. Es wird auch beobachtet, dass gewisse Erscheinungen, die für west-nilotische Sprachen typisch sind, wie die Unterscheidung zwischen inalienablem und alienablem „Besitz“ oder *N/*K-Elemente zur Unterscheidung von Singular- und Pluralformen, in einer diachronischen Perspektive ihre ursprüngliche Funktion verlieren.

Acknowledgements

Languages have always played an important role in my life. I was born from parents of different nationalities and I have had the fortune to learn both their languages while growing up. Since my early years I have been fascinated by the way how every language can express similar concepts using different forms and structures. This is probably how my interest in linguistics originated. However, I didn't have any knowledge about African languages until I met one person who has introduced me to Swahili and Dholuo. In this regard I would like to express my first thanks to Evalisha Akinyi Freitag, who represents my first encounter with African languages and the source of my decision to study African linguistics. I have to thank her also for the support she has given me in the realisation of this work and for the valuable explanations about the Luo language. *Erokamano ahinya!*

I would like to express my gratitude to my supervisor Dr. phil. Univ.-Prof. Gerhard Böhm who has supported me throughout my work with guidance and professional advice, and also for his lectures about grammatical features in the various families of African languages and historical linguistics, which have represented a solid fundament for my formation.

I need to further thank all the ones who have contributed to my formation in specific African languages at the University of Vienna, in particular Dr. lic. phil. Daniela Waldburger for her lectures about Swahili language and literature, Mag. Dr. Martina Gajdos for Fulfulde grammar, and Mag. Dr. Tamara Prischnegg, BSc for Somali.

Finally, I have to express my gratitude to my parents and all the persons who have supported and encouraged me throughout my years of study.

Abbreviations

AC	Acholi
AN	Anywa
coll.	collective
f.	female
HT1	high tension form with sound change of the root-final consonant
HT2	high tension form without sound change of the root-final consonant
imp.	imperative
intr.	intransitive verb
LT	low tension
LU	Luo
m.	male
OBL	oblique case
PÄ	Päri
PD	related detransitive
pl.	plural
PST	past
sc.pl	status constructus plural
sc.sg	status constructus singular
sg.	singular
SH	Shilluk
tr.	transitive verb

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1. Introduction

The nouns in Dholuo (or simply Luo) appear in many different ways, which may vary as result of morphonemical modifications of the stems in the formation of modified forms, such as the plural and the genitive, to other ones characterised by affixes changing completely or partially their original meaning. The aim of this master's thesis is than to investigate the morphological structures of the substantives in this language, comparing them with the ones of other languages which are genetically related to it. After the description of the structures and processes taking place for Dholuo nouns, the comparative analysis should on one side help to better understand some aspects of the source language, but on the other hand also to recognise which phenomena are typical for the whole language family, which for the source language only, and how such elements have been eventually modified in the single languages in a diachronic perspective. The other languages chosen for the second part of this work are Shilluk, Acholi, Anywa (or Anuak), Pāri (or Lokoro) and to a lesser extent Dinka, all belonging to the Western Nilotic branch. Although they all originate from the same proto-language, apart for some few exceptions they don't constitute an areal continuity, being surrounded mainly by Eastern and Southern Nilotic, Cushitic and Bantu languages, which could have contributed to mutual exchanges and developments in the single languages.

1.1 Structure of this work

The first chapter will give a brief overview of Dholuo including its distribution area, its genealogical classification and a typological summary of the morphological features of this language, especially the ones of relevance for this work. It will also offer a brief overview of the distribution areas of related languages, in particular the ones which will be treated in the comparative analysis. One of the main problems in the source literature, not only for Dholuo, but also for the other languages, is the heterogeneity of notations in transcriptions and representations. The Luo orthography disregards some important phonetical features such as the difference between open and close vowel, and tone, which are both morphologically relevant. It will be attempted to provide the reader with the most possibly accurate notations following the international standards in order to overcome this differences and allow a solid comparison of the data.

The second chapter will analyse the phonetical features of Dholuo and the morphology of the noun, with a particular regard to the various ways of formation of the plural and other modified forms, trying to classify the nouns on the basis of their behaviour. Modified forms of Luo nouns may occur as result of morphonemical processes or affixation, change of prefixes in nouns subject to prefixation, and with irregular forms, such as in kinship terms, which will be analysed in a separate paragraph. A further paragraph will be also dedicated to the sex-indicating nouns in Luo. This language, as well as other related languages, has no grammatical gender, but there are particular domains where this feature can be expressed, such as proper names, kinship terms, colours and names for livestock.

The third chapter will concern the comparative analysis of the structures described in the second chapter with the corresponding ones in the chosen related languages. The aim of this work is not to describe and to analyse the systems of every single language, but instead to recognise how structures and morphonemical processes typical for Dholuo occur in these other languages, their similarities and differences, which may also provide a key to observe how such structures and processes have evolved diachronically.

1.2 Methodology

This work will be based on available source literature. Among the languages which will be analysed Dholuo surely offers the largest amount of sources, even though in earlier publications the efforts to classify the nouns of this language didn't bring exhaustive results. The most reliable and accurate grammar of Dholuo is the one published by Tucker (1994). However, the works by Omondi (1982) and Okoth-Okombo (1982) can be considered as very solid analyses of this language as well. The older publications by Stafford (1967) and Huntigford (1959) are some of the most complete early efforts to describe the grammar of Dholuo, however they use different approaches to classify the Luo nouns, not recognising some fundamental processes which can be found in later works.

The support of a L1 speaker of Dholuo and some audio-visual medias will also help to better understand the phonology of this language and some other crucial issues. However, it has to be noted, that the degree of knowledge and sensibility for a language such as Dholuo

may significantly vary in consideration of the age and the environment of acquirement of the language by the speaker. This language, similarly to all the other languages treated in this work, doesn't have an official status in the countries where it is spoken. It is considered a vernacular language, spoken in a restricted community and acquired only at home, but not taught in schools (except for some rare cases). It coexists with other languages, namely English and Swahili in Kenya, which in the last decades had a hard impact on the speakers of vernacular languages. Especially for the ones living in urban areas, the use of many terms from the dominant languages replacing expressions in Dholuo, as well as code switching, is nowadays more a rule than an exception. All these elements have to be considered in the analysis of speech samples. A field research in areas where the language may have conserved a higher degree of its integrity, such as more isolated rural areas, was unfortunately not possible for this work, which is almost entirely based on source literature.

For the other languages of interest for this work the sources are more limited than for Dholuo. The only available grammars for Shilluk are represented by the publications by Westermann (1912) and Kohnen (1933). The Anywa grammar by Reh (1996) is a very accurate work providing an exhaustive analysis of the structures of this language, but it is also the only available source. The data for Pāri are based mainly on the grammar by Simeoni (1978), a small introductive description of this language, which however lacks of some important elements such as a phonetic notation. In any case it is a valuable source that allows a comparative analysis also with this language. The grammar by Crazzarola (1955) is the only available publication for Acholi.

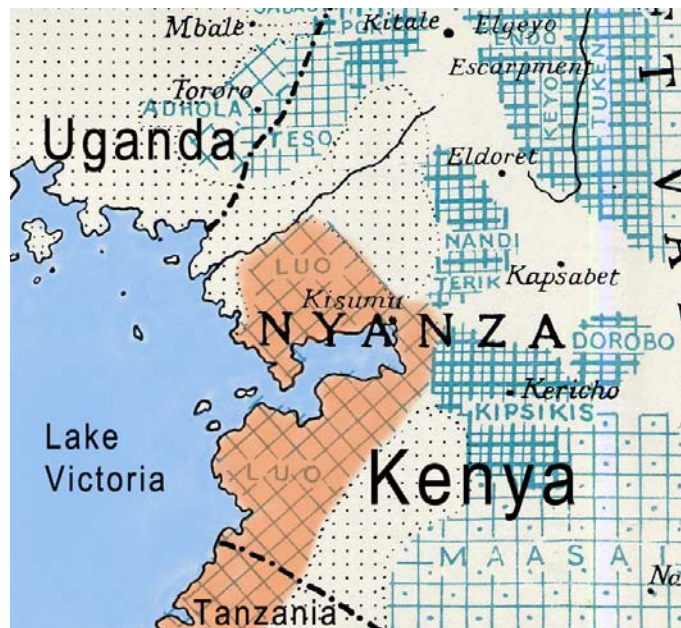
Apart from these language specific works, a considerable contribution to the realisation of this master's thesis is represented by the comparative studies by Tucker and Bryan (1966), Heusing (2004) and Storch (2005), along with several secondary sources such as articles from linguistics journals and vocabularies. The intention of this work is also to produce a useful instrument for better understanding of the structures of Dholuo and of the other analysed languages in a field of research which still needs further efforts and where many aspects have not yet been exhaustively investigated.

2. The Luo language: a brief overview

2.1 Distribution area of Luo

The Luo language is mainly spoken in Kenya and Tanzania in the areas adjacent to the eastern shores of Lake Victoria. It is also internationally known as *Dholuo*. This term coincides with the one used to indicate this language by its native speakers, the *Jo-Luo*, and it is a compound of the prefix *dho-*, a contraction of *dhok* ‘mouth or language’, which forms the denomination of languages, and the stem *-Luo*. There are several other terms found especially in older publications to refer to this language: *Luo Kavirondo*, *Nilotic Kavirondo*, *Nyifwa*, *Nife* (Murdock 1959:329; Köhler 1955:19; Huntingford 1959:V).

Luo is mainly spoken in the Nyanza region in western Kenya (see the map on the right by Tucker and Bryan (1966 - partially adapted)), where the last census in 2019 registered 5.066.966 individuals responding to this ethnical affiliation (openAFRICA 2019). The city of Kisumu is the biggest urban centre in this area. Consistent Luo communities can be found also in the main cities of the country, especially in Nairobi and



Mombasa, where in the last decades an important increase of the population due to internal migration from rural to urban areas has been observed.

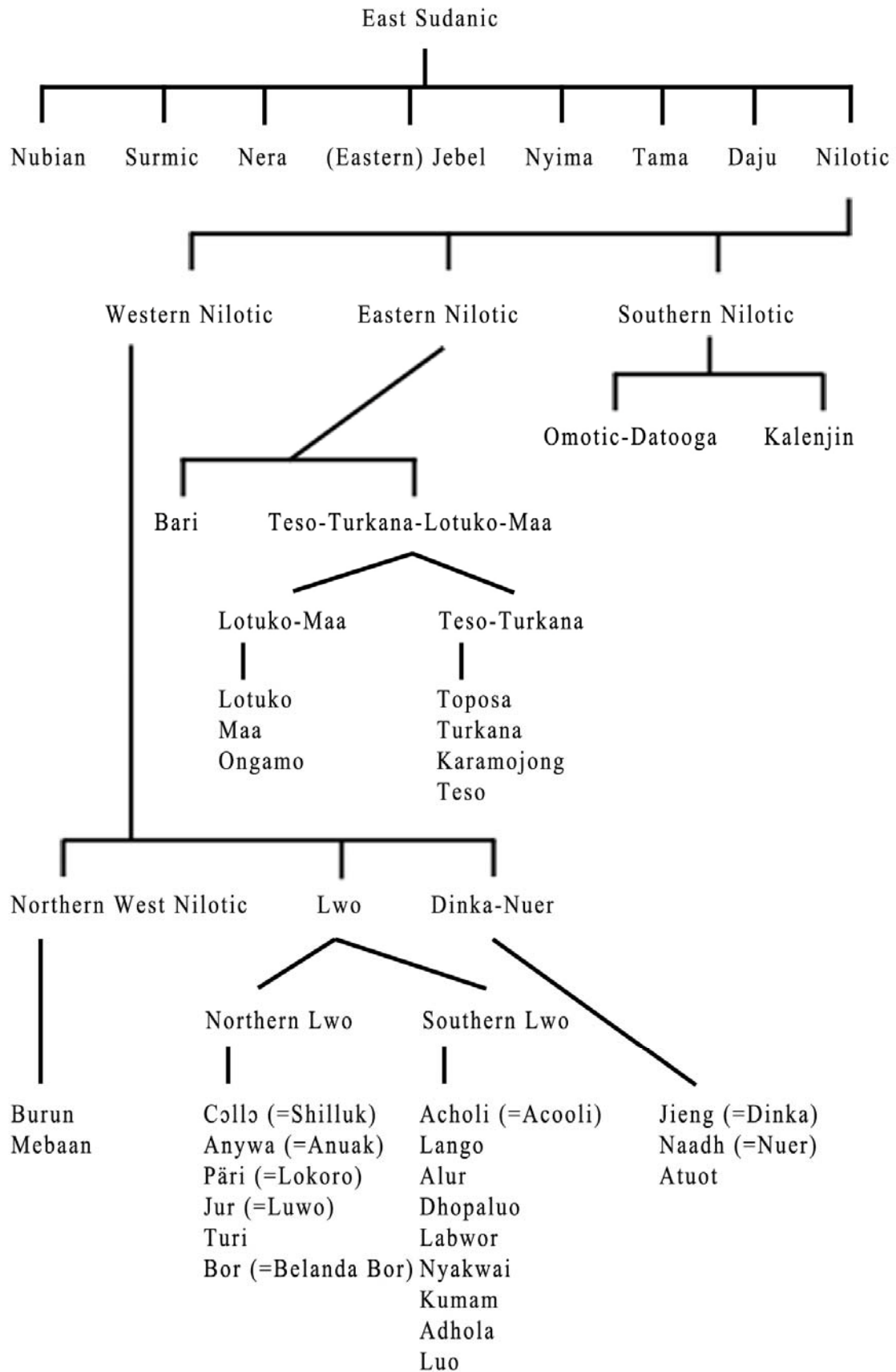
A quite smaller Luo population lives in the Mara region in the north-west of Tanzania in the areas adjacent to the Kenyan border, forming an areal continuity with the one in the neighbouring country (Omondi 1997:87). According to Madut (2020:47) the Luo population in the Mara region of Tanzania counted approximately 280.000 individuals in 2001. In both countries Luo is not the official language and it is spoken regionally as a local language.

2.2 Genealogical classification of Luo

The first written document about the Luo language was a short vocabulary of 16 words published in 1873 by Charles New in his 'Life, Wanderings, and Labours in Eastern Africa'. The author immediately noted an affinity to Shilluk, one of the first African languages encountered during the explorations along the Nile in the second half of the 19th century in southern Sudan, at that time already classified as a Nilotic language (Köhler 1955:10).

According to the latest classifications Luo is a language belonging to the Nilo-Saharan phylum defined by Greenberg (1963:58) and to its subcategories Chari-Nile, Eastern Sudanic and Nilotic (Western). Although Greenberg's definition of Nilo-Saharan has been put under discussion by several scholars (Dimmendaal 2011:84; Vossen/Dimmendaal 2020:364), the Eastern Sudanic family is widely accepted and Luo as part of it.

The main element of distinction in the sub-classification of Nilotic languages was from the beginning of their study the presence of Cushitic influence. By these means Westermann divided this family into a *Nilo-Sudanic* and a *Nilo-Hamitic* branch. In the languages of the latter group the Cushitic influence is prevalent (Westermann 1912:33ff; Köhler 1955:27). In a later stage, in order to eliminate racial or cultural biases from genetic classification of African languages, other authors suggested new names for the given families. It is the case of Archibald Tucker and Margaret Bryan, who renamed Westermann's categories respectively to *Nilotic in traditional sense* and *Paranilotic*, applying few changes in their contents (Tucker/Bryan 1966:402, 443). A further classification, which set the basis for the actual ones, was proposed by Greenberg and comprehended three coordinate groups of languages named according to their areal distribution: Western Nilotic (Burua, Shilluk, Anuak, Acholi, Lango, Alur, Luo, Jur, Bor, Dinka, Nuer), Eastern Nilotic (Bari, Fajulu, Kakwa, Mondari, Jie, Dodoth, Karamojong, Teso, Topotha, Turkana, Masai) and Southern Nilotic (Nandi, Suk, Tatoga) (Greenberg 1963:85f). In this new classification it can be assumed that the Western Nilotic branch coincides with the one previously called *Nilotic in traditional sense*, whereas the Eastern Nilotic with the *Paranilotic*.



Classification of Eastern Sudanic by Bender (1997:29ff) (supplemented with personal notes)

The genealogical classification of the Nilotic branch by Bender reported on the previous page shows the actual stage of the research. Although classifications by other authors differ in some parts from the one proposed (cf. Grimes/Grimes (1996:92f), Heusing (2004:7), Ehret (1993:104-106), Dimmendaal (2020:392ff)), these discrepancies don't regard the languages object of this work and therefore will not be discussed here. A further classification, which diverges from the already mentioned division in Southern, Eastern and Western sub-branches of the Nilotic branch only by the denomination of these categories, is brought by Ogot (2009:8f) and is based on the physical conformation of the areas actually populated by these groups: respectively *Highland Nilotic*, *Plains Nilotic*, and *Lake and Rivers Nilotic* or *Jii-Speakers*.

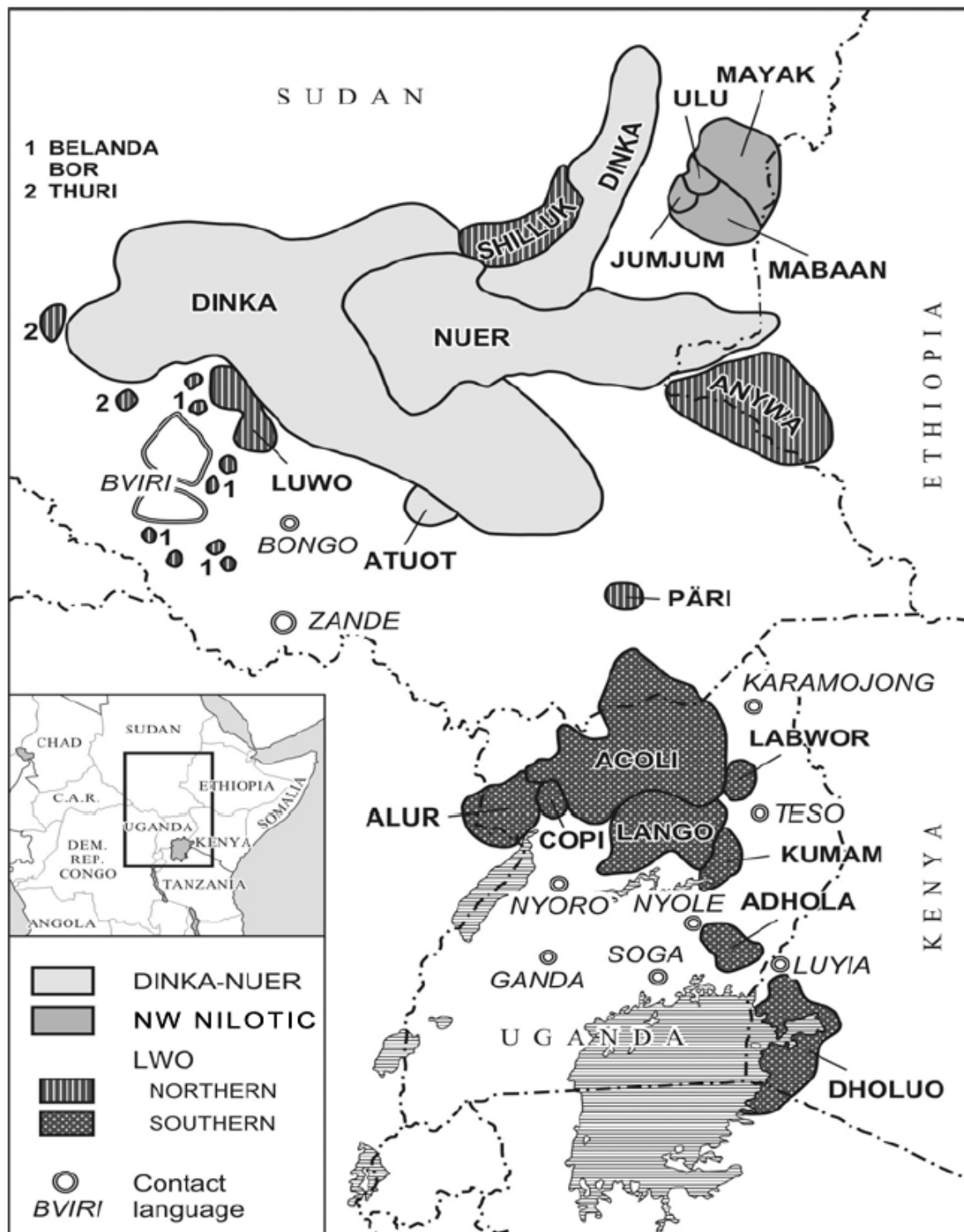
2.3 Distribution areas of Western Nilotic languages

The Luo are the only Western Nilotic people in Kenya and Tanzania and they represent the largest expansion of this group to the south. They reached their actual location mainly in the 16th and 17th century, infiltrating western Kenya between Lake Victoria and Mount Elgon, and subsequently spreading up to river Mara. The other Western Nilotic groups are concentrated in four main areas:

- southern Sudan, along the White Nile, the Bahr-el-Ghazal and adjacent wetlands (Nuer (or Naath), Pāri, Dinka (or Jieng), Shilluk (or Cɔllo));
- north-western Uganda and adjacent areas between Lake Onekbonyo (former Lake Albert), the Victoria Nile, and Lake Kyoga (Acholi, Padhola, Paluo, Alur, Langi, Kumam);
- eastern Congo and north-western Uganda (Alur)
- south-eastern Ethiopia (Anywa (or Anuak), Nuer).

The original area occupied by the earlier Western Nilotic peoples was identified in the Upper Nile basin, more exactly in the region of the many lakes such as Nyibor, Anyii, Yirol and Shabe lying to the west of the Bahr-el-Jebel in eastern Bahr-el-Ghazal, presently occupied by the Dinka (Ogot 2009:8ff, 23; Heine 1980:32f).

According to the scheme in the previous paragraph with the classification by Bender (1997:29ff), Western Nilotic languages are further divided into three sub-branches: Dinka-Nuer, Northern West Nilotic and Lwo (or Lwoo). The following map (Storch 2007:2 - partially adapted) shows the distribution areas of these groups:



The Dinka-Nuer group is the largest and is located in South Sudan along the White Nile and the Bahr-el-Ghazal rivers, and on the south of the western part of the Bahr-el-Arab, mainly in the Bahr-el-Ghazal and Upper Nile regions. The Northern West Nilotic group is located in the western part of South Sudan between the White and the Blue Nile. The Lwo group is divided into two sub-branches: the Northern and the Southern Lwo. The first one doesn't have a territorial continuity, but it is represented instead by clusters around the areas populated by the Dinka-Nuer group. The Souther Luo group is mainly located in north-central Uganda, entering the border of the DR Congo northly of Lake Onkebonyo (Lake Albert), and reaching the western shores of Lake Victoria in western Kenya and Tanzania.

In particular, the languages which will be treated in this work are Shilluk, Anywa and Pāri of the Northern Lwo group, and Acholi (Southern Lwo). The Shilluk are located in north-western South Sudan on the eastern shore of the White Nile in the area around the town of Malakal. The Anywa are found on both sides of the South Sudanese-Ethiopian border along the rivers Sobat, Baro, Gelo, and Akobo (Reh 1996:3). The Pāri have their homeland in six villages around the Mount Lafon (also Mount Lipul), east of the South Sudanese capital city Juba (Mutho 2020:2). The Acholi are located in north-central Uganda extending to a small portion of land on the other side of the South Sudanese border (Crazzarola 1955:ix).

Often in the literature are found different terms for Western Nilotic languages which may lead to confusion. This is due to the fact, that sometimes the term adopted by the colonials is used (eg. *Shilluk* – they call themselves *Cəllɔ*, whereas the language is *Dhɔ-cəllɔ*), in other cases it is referred to the term used by the speakers to call their own language (e.g. *Dholuo* – *Luo* indicates the Luo people or the language in English), and sometimes the term indicates the people of a specific group (eg. *Pāri* – they are also called *Ləkɔɔro*, while the language is called *Dhi-Pāri* (Simeoni 1978:10,28)).

2.4 Short typological overview of Luo

In this part the main features of the Luo language will be presented. Luo has an inventory of 26 consonant phonemes, which can be classified in 6 points of articulation and 7 manners of articulation, including two semivowels, the labiovelar [w] and the palatal [y] (Heusing 2004:114; Okoth-Okombo 1997:17f). The table below shows the consonant inventory of Luo using the symbols of the IPA phonetic alphabet (if these are different than the ones used in the written language, the latter are reported in brackets under the IPA ones):

	Labial		Dental		Alveolar		Palatal		Velar		Glottal	
Plosive	p	b	t̪ (th)	d̪ (dh)	t	d	c (ch)	ɟ (j)	k	g		
Nasal compounds		mb		n̪ (ndh)		nd		ɲ (nj)		ŋ (ng)		
Nasal		m				n		j (ny)		ŋ (ng')		
Trills						r						
Fricative	f				s						h	
Lateral approximants						l						

Tucker and Bryan (1966:405ff) identify five points and five manners of articulation as basic consonant system for all the Western Nilotic languages. In Luo indeed occur also nasal compounds and fricatives (marked in yellow in the table), which are not common for other languages of this family. The glottal point of articulation is particular for this language as well. Some scholars including Okoth-Okombo (1997:17f) classify the dental plosives [t̪] and [d̪] as dental fricatives [θ] und [ð]. In this work I will consider them as dental plosives on the basis of my experience and the opinion of other authors (Heusing 2004:109; Tucker/Bryan 1966:405; Omondi 1982:179).

A further element of disagreement is the presence of the glottal stop [ʔ] in Luo. Tucker (1994:30ff) includes it in the consonant inventory of this language (bringing the total amount of consonants to 27). Nevertheless the glottal stop occurs in very rare occasions and shows no

phonemic significance, as it is used just to (a) separate words when the second one begins with a vowel and no assimilation takes place (e.g. *mak mana an* /mákmáná ʔán/ ‘except me’) or (b) to separate the prefix /a-/ of a proper name when the stem begins with a vowel (e.g. *Aume* /aʔúmâ/ proper name), as well as in the word /ʔaʔa/ ‘no’ (Heusing 2004:113f; Okoth-Okombo 1997:19).

The vowel inventory of Luo includes four pairs, each containing a [+ATR] vowel and its [-ATR] counterpart, and a single vowel (Heusing 2004:31; Okoth-Okombo 1997:20). In the literature about Nilotic languages these categories are sometimes classified on the base of different features. So Tucker and Bryan (1966:404) divide the pairs in ‘close and hollow’ (the [+ATR] class) and ‘open and hard’ (the [-ATR] class). Huntingford (1959:VII) on the other hand differentiates these categories in ‘close and long’ and ‘open and short’. It was observed that all these features correspond in the definition of two distinct categories (Heusing 2004:22). For brevity in this work it will be referred to the tongue position as distinctive feature. A particular note has to be done for the single vowel [a], which has [-ATR] quality. Tucker (1994:15f) states that also this vowel has a [+ATR] counterpart, namely [Λ] (in some sources [ə]). In fact there is no evidence that this vowel has a phonemic status and it should be rather considered as an allophone of /a/ (Heusing 2004:31; Swenson 2015:101ff).

	<u>Front</u>	<u>Back</u>	<u>Tongue root position</u>
<u>High</u>	i	u	[+ATR]
	ɪ	ʊ	[-ATR]
<u>Mid</u>	e	o	[+ATR]
	ɛ	ɔ	[-ATR]
<u>Low</u>	a (Λ)		
	Close vowels	--> [+ATR]	i, u, e, o
	Open vowels	--> [-ATR]	ɪ, ʊ, ɛ, ɔ

Luo has a vowel and a consonant harmony as well. The vowel harmony of this language involves a [+ATR] spreading from word root to suffix, from root to prefix, from dominant suffix to root (such dominant suffixes are among others personal objects of the 2nd person both sg. and pl. in combination with verbal roots, or possessive suffixes of the 2nd person sg. and pl. in combination with nouns), and across word boundaries in an unidirectional way from

right to left. The [+ATR] spreading from a suffix to the root is typical for Luo and not present in other Western Nilotic languages (Swenson 2015:136; Heusing 2004:119; Tucker 1994:16f, 24). Here are some examples of vowel harmony in Luo (Heusing 2004:132; Swenson 2015:129ff; Omondi 1982:19):

- a. /bil-ɔ/ *to taste* (the infinitive suffix /-ɔ/ harmonises with the root of the verb)
- b. /bil-o/ *to soak* (same as in the previous example)
- c. /bur-ε/ *his boil* (the possessive suffix for the 3rd person sg. /-ε/ harmonises with the root of the noun)
- d. /bur-e/ *its hole* (same as in the previous example)
- e. /ɔ-bil-ɔ/ *he/she/it tastes* (the subject prefix for the 3rd person sg. /ɔ-/ harmonises with the root of the verb)
- f. /o-bil-o/ *he/she/it soaks* (same as in the previous example)
- g. /bur-i/ *your boil* (the suffixes of the 2nd person (both sg. and pl.) are [+ATR] dominant and spread this feature to the word root (in this case /bur/))
- h. /ɔ-sud-ε/ *he moves him*
- i. /o-sud-i/ *he moves you* (similarly as in g. the [+ATR] dominance of the object suffix of the 2nd person sg. spreads to the root of the verb and its prefix (note the difference with h., where this is not happening because the object suffix is not dominant))
- j. /ɔbɔk/ *leaf* + /pof/ *grapefruit* --> /obok pof/ *grapefruit's leaf*
(the [+ATR] feature of the word on the right spreads to the left one when these are combined)
- k. /pof/ *grapefruit* + /mɔtɔp/ *rotten* --> /pof mɔtɔp/ *rotten grapefruit*
(contrarily to what happens in j., there is no spreading here as the word on the right is not [+ATR] dominant)

The consonant harmony in Luo involves the alveolar stops [t], [d], [n] and [nd] on one side, and [t̪], [d̪], [n̪] and [nd̪] on the other. Due to the presence of the nasal stop [n̪] it's not possible to define the latter one as a pure dental harmony. Heusing (2004:135) explains this phenomenon with the possible presence of the dental nasal [n̪] in Proto-Nilotic, which was completely assimilated to [n] in the diachrony of the Luo language. The phoneme [n̪] can be found in some Northern Lwo languages such as Shilluk, Pāri and Anywa. According to Mackenzie (2016:14ff) these languages have a dental harmony with a symmetrical inventory

of dental stops contrasting with alveolar ones. An example for this supposition can be found in the Luo word /ḑano/ ‘person’ and its corresponding forms in Shilluk, /ḑaan̩/ (Gilley 2000:19), and in Pāri, ḑaṇo¹ (Simeoni 1978:23). See also the following examples from Luo:

- a. /ṭedo/ *to forge*
- b. /tedo/ *to cook*
- c. /ṇḑiṇḑo/ *to feel “pins and needles”*
- d. /ḑano/ *person*
- e. /dana/ *grandmother* (The examples d. and e. show that /n/ harmonises with dental as well as alveolar stops (Heusing 2004:140))

A further typical feature of Luo and other Southern Lwo languages is the consonant change involving the nouns which realise their plural with the suffix /-E/ (realised as /-ɛ/ or /-e/), as well as their status constructus (Heusing 2004:141; Gregersen 1974:106). This phenomenon will be described and discussed in the next chapter, for it is a fundamental part of this work.

The *N/*K alternation, first described by Bryan (1968), is another typical feature of the Luo language. It is one of the most stable properties of the Nilo-Saharan phylum (Vossen/Dimmendaal 2020:369). This alternation distinguishes number in some contexts, with an alveolar or palatal element in the singular form, and a velar element in the plural. The contexts where this alternation occurs may vary from language to language, but they usually involve self-standing personal pronouns, possessives, pronominal constructions, special categories of nouns with irregular plurals, verb conjugation (Bryan 1968:170f). The main reflexes of *N in Nilotic are the nasal consonant [n], alveolar consonant [d] and [r], the palatal consonant [j] and the palatal approximant [y], and [n] realised as nasalisation or as part of a nasal compound. On the other hand, the main reflexes of *K are the velar consonants [k], [g], [ŋ] and the labiovelar approximant [w] (ibid. 171f). In Luo the *N/*K alternation appears mostly in pronominals and affixes to distinguish number (e.g. in demonstrative pronouns: /man/ - /magi/ ‘this - these’, /mano/ - /magɔ/ ‘that - those’, /maca/ - /maka/ ‘yonder (sg.) - (pl.)’ (Bryan 1968:197; Tucker 1994:182)). In the analytical part of this work it will be examined if this alternation occurs also in other contexts.

¹ Simeoni (1978) doesn’t differentiate between close and open vowels

Luo has also some suprasegmental features. Tongue root position may have a grammatical function in verbs, in particular with such having [-ATR] quality in their transitive and imperative form. The intransitive form of these verbs has [+ATR] quality (examples a. and b. below) (Swenson 2015:120ff). The other important suprasegmental feature in Luo is tone, having a lexical (examples c. and d. below) and grammatical distinctive function. In particular it applies to differentiate between the perfective and non-perfective aspect of verbs (examples e. and f. below) (Tucker/Bryan 1966:427; Omondi 1982:37)

- | | | | | | |
|----|-------------|-----------|-------|---------------------------|----------------------------------|
| a. | /pɪɖ/ | /pɪɖ bɛl/ | /pɪɖ/ | <i>plant (sorghum)</i> | respectively imp., tr. and intr. |
| b. | /pɔk/ | /pɔk bɛl/ | /pɔk/ | <i>peel (sorghum)</i> | respectively imp., tr. and intr. |
| c. | /àpwôyò/ | | | <i>rabbit</i> | |
| d. | /ápwôyò/ | | | <i>I have appreciated</i> | |
| e. | /átédó réc/ | | | <i>I am cooking fish</i> | non-perfective aspect |
| f. | /átêdò réc/ | | | <i>I have cooked fish</i> | perfective aspect |

The Luo language has basically no grammatical gender. The personal pronoun of the 3rd person /én/ refers to both male and female subjects without distinction. There are a few cases in which sex can be differentiated morphologically, and these will be discussed in the next chapters. The word order in Luo is S(ubject)-V(erb)-O(bject). In the genitive constructions the nomen rectum (possessor) follows the nomen regens (possessed) (e.g. /agulu/ ‘pot’ + /ruot/ ‘chief’ --> /aguc ruot/ ‘pot of the chief’) (Omondi 1982:94f; Tucker/Bryan 1966:438).

2.5 The Luo orthography and its limits

Luo is currently written with Latin alphabet and uses an orthography which is based on the one developed by the British colonisers for all the Nilotic and Nilo-Hamitic languages in Uganda and Sudan. Nevertheless the Luo orthography differs from it in two aspects: <ch> is used for [c] instead of <c>, and <ng’> is used for [ŋ] instead of <ŋ> (Huntingford 1959:VII).

The main limits of the Luo orthography are that it doesn’t support some phonetical and no suprasegmental features, in particular the distinction between open (resp. [+ATR]) and close (resp. [-ATR]) vowels, and the tone, which are both morphologically relevant in this language. The word *le* for example can have two different meanings depending on the ATR

quality of its vowel: if realised as /le/ it means ‘animal’, but if realised as /lɛ/ it means ‘axe’. Similarly the word *apwoyo* can have different meanings depending on the tone: if realised as /âpwôyô/ it means ‘rabbit’, but if realised as /ápŵôyô/ it means ‘I have appreciated’. In verbs the tone has also a distinctive function between the perfective and the non-perfective aspect. The lack of these distinctive features in the Luo orthography don’t allow a differentiation of certain terms and forms in the written language, which can be only deduced from the context.

2.6 Phonetic notations in this work

In this work the International Phonetic Alphabet (IPA) updated to 1996 will be used for phonetic notations. In the available source literature phonetic notations are not uniform, for different standards were used. Examples and quotations from such sources, where other symbols were used, will be adapted to the chosen ones for this work, in order to provide the reader with as far as possible homogenous transcriptions.

As already mentioned in a previous paragraph some scholars including Okoth-Okombo (1997:17f) identify the dental plosives [t̪] and [d̪] as dental fricatives respectively [θ] and [ð], and use the latter symbols in their works. Tucker/Bryan (1966) and Gregersen (1974) use the symbols [t] and [d] for the dental plosives [t̪] and [d̪]. In other publications the palatal plosives [c] and [ɟ] are considered affricates, respectively [t͡ʃ] and [d͡ʒ] (Heusing 2004:40). A further incongruence is represented by the the [+ATR] counterpart of [a], which is sometimes represented as [ʌ] and in other cases as [ə]. In this work the symbol [ʌ] will be used for this vowel for the languages where it has a phonemic status. In Luo [a] and [ʌ] are allophones, so the phonemic representation /a/ will be adopted without differentiations.

Omondi (1982) uses a particular notation based on the orthographic symbols of the written Luo. To differentiate close vowels from open ones she places a dot (.) before words that have open vowels (due to vowel harmony all the vowels in the word belong to the same category). Similarly Tucker (1994) uses bold fonts for words with open vowels. See the following example (Omondi 1982:37) written using the two mentioned notations, as well as the IPA one:

<u>Omondi (1982)</u>	<u>Tucker (1994)</u>	<u>IPA (1996)</u>
.dhákô ótédó .réch	dhákô ótédó réch	ḁákô ótédó réc

A further point of incongruence in the literature regards voice quality of vowels. As already explained in 2.4, in Western Nilotic languages vowels can be divided in two groups according to their degree of openness, the escape of air they produce when pronounced ([±BRV] feature), and the tongue root position ([±ATR] feature). Nevertheless, the degree of these characteristics seem to coincide in the two categories: on one side the vowels [a], [ɛ], [ɔ], [ɪ] and [ʊ] which are open, hard, nonbreathy [-BRV] and [-ATR], and on the other side [ʌ], [e], [o], [i] and [u], which are close, hollow, breathy [+BRV] and [+ATR]. For the mentioned features seem to have the same value in the two distinct groups (Reh 1996:36f), in the analysis of this work only the feature [±ATR] will be used for brevity and homogeneity.

A further issue in the source literature are notation which don't differentiate between allophone consonants. In Reh (1996) for Anywa is adopted a phonemic notation which doesn't distinguish voiced from unvoiced plosives: the symbols in capital letters /B/, /DH/ (in this work /Ḑ/ will be used), /D/, /J/ (in this work /ɗ/ will be used) and /G/ may mean both the voiced or the unvoiced counterpart of these consonants. The same applies in Gilley (2000) for Shilluk. In other sources no distinction between open and close vowels is done, so in these cases it is impossible to determine the real characteristics of these vowels. Therefore the following notations will be used in this work:

- for words written with a phonemic notation slashes will be used, and eventually capital letters for root-final plosives, if the voiced/unvoiced quality is unknown, e.g. /kɔḁ/ or /kɔḐ/;
- if the ATR quality of the vowels is unknown, the word will be represented without brackets and, if mentioned in the text, also in italic, e.g. *koḁ* ;
- for words or phrases written using a language's official orthography angle brackets and italic will be used, e.g. <*koth*>;
- for translations or meanings the quotation marks '...' will be used, e.g. 'rain'.

For tone notations the following symbols will be used: (´) high tone, (`) low tone, (^) falling tone, and (ˇ) rising tone. The mark (ˆ) before a word or syllable indicates that all subsequent high or falling tones are in a lower key (down step) as used by Tucker and Bryan

(1966:9). Some languages such as Anywa and Shilluk also have a mid tone. This will be represented with the symbol (ˊ) as in Reh (1996).

3. The morphology of the Luo noun

In this chapter some of the typical morphological features of the Luo noun will be described and analysed. After an introductory paragraph about consonant apophony it will be focused on the different patterns of formation of the plural, which may include different suffixes, prefixes and modified forms of the noun, and on the formation of the genitive by the nominal form of the status constructus. Irregular nouns will be analysed as well. The last paragraph will handle the morphology of sex-indicating terms and their behaviour, in particular proper names, kinship terms, and colours and names for cattle.

The first Luo grammars by Huntingford (1959) and Stafford (1967) describe the different kinds of plurals which can be found in this language and they try to group them into categories depending on the suffixes or prefixes of these forms. By these means Huntingford identifies five different classes (eventually six, for the class *o-/nya-* is described apart from the other groups, but not mentioned as a separate one). On the other hand Stafford divides the nouns in ten different regular classes and an irregular one. However, they don't manage to draw satisfactory rules to explain the morphonemical changes that apply in the formation of the plural forms as well as in genitive ones. More detailed explanation of these processes can be found in Omondi (1982) and Tucker (1994), which will be the main sources for the analyses in this chapter.

3.1 Stem-final consonant apophony

Stem-final consonant apophony is one of the main factors in the formation of the status constructus and of the plural of Luo nouns. This is mostly accompanied by suffixation and eventual tone change for nouns following regular patterns. Some scholars refer to this process as 'consonant polarity' (Gрегersen 1974:105ff; Heusing 2004:141ff), but in this work the terms 'consonant apophony' or simply 'consonant change' will be employed. In his reconstruction of consonant change in Proto-Southern-Lwo, Heusing (2004:144) has divided consonants in two symmetrical groups: (a) 'fortis' including voiceless plosives and nasal compounds on one side, and (b) 'lenis' including voiced plosives and nasal compounds. This terminology is used also for consonant permutations occurring in some western African

languages such as Fulfulde (or Fulani) and Serer (cf. Böhm 1989:36ff; Gajdos 2015:44ff), although there are some differences concerning the amount of the grades in each language and the content of every category. In all the mentioned languages the ‘fortis’ grade is characterised mainly by plosives (voiceless in Proto-Southern-Lwo and Serer (with an exception for /b/ (cf. Böhm 1989:40)), voiced and voiceless in Fulfulde), whereas the ‘lenis’ grade varies for each language. In Fulfulde it contains liquids and fricatives, in Serer voiced plosives and fricatives, whereas in the reconstruction of Proto-Southern-Lwo voiced plosives and nasals.

In the analysis of Luo the categories ‘A’ and ‘B’ will be used instead. By a certain degree they correspond to the ‘fortis’ and ‘lenis’ grades respectively, but on the other hand they show some differences in their content and in the direction of the changes. However, the common aspect of all the mentioned changes is that they occur homorganically, i.e. at the same point of articulation. The following table ² shows the consonant alternations in Luo:

A	↓ p ↓		↓ t̥	↓ t	↓ c ↓			↓ k	mb	nd		ɲɲ	ŋg
B	↑ b	↑ w	↑ d̥	↑ d	↑ ʃ	↑ r	↑ y	↑ g	↑ m	↑ n	↑ l	↑ ɲ	↑ ŋ

The Luo ‘A’ category coincides with the ‘fortis’ grade quoted by Heusing (2004:144) for Proto-Southern-Lwo, whereas the ‘B’ category comprises, apart from voiced plosives and nasals included in the ‘lenis’ grade, also liquids and semivowels. The alternation between voiced and voiceless plosives occurs bidirectionally, whereas the change between nasals and nasal compounds in one direction only. Furthermore, some consonants alternate with more than one counterpart (Heusing 2004:153; Omondi 1982:91ff). In details it can be assumed that:

- the consonants in ‘B’ have all only one counterpart in ‘A’, whereas the ones in ‘A’ can alternate with more than one consonant in ‘B’, e.g.:

- a. /kitâbù/ *book* (sg.) --> /kitépè/ b --> p
- b. /àlàp/ *open space* (sg.) --> /àlábê/ p --> b

² This table was taken from Heusing (2004:153) and partially adapted adding /l/ in an unidirectional alternation with /nd/ (cf. Omondi 1982:91)

c. /pàp/ *plain (sg.)* --> /péwê/ p --> w

- all the consonants in ‘B’ are subject to a change in the formation of the status constructus, whereas among the consonants in ‘A’ only voiceless plosives change in the opposite direction with all their counterparts, with the exception of the unvoiced palatal /c/, which changes with /ɟ/ and /y/, but not with the liquids /r/ and /l/ (the lateral liquid /l/ is not mentioned in the table, for this change happens only in few irregular cases). A change from ‘A’ to ‘B’ doesn’t occur for nasal compounds as well. E.g.:

d. /òkwâɟò/ *walking cane (sg.)* --> /òkwécê/ ɟ --> c
e. /tìc/ *work (sg.)* --> /tíjê/ c --> ɟ
f. /kòyò/ *adze (sg.)* --> /kócê/ y --> c
g. /wìc/ *head (sg.)* --> /wìyè/ c --> y
h. /ɲgòrò/ *coward (sg.)* --> /ɲgòcè/ r --> c
i. /wác/ *word (sg.)* --> /wècè/ c doesn’t change
j. /kòɲò/ *beer (sg.)* --> /kóngê/ ɲ --> ɲg
k. /wàɲg/ *eye (sg.)* --> /wángê/ ɲg doesn’t change

- nasal stops alternate unidirectionally with nasal compounds as stated by Heusing (2004:153). However, the alveolar lateral approximant /l/ changes unidirectionally with the nasal compound /nd/ as well, e.g.:

l. /pàlà/ *knife (sg.)* --> /pándê/ l --> nd
m. /tiɛlɔ/ *foot (sg.)* --> /tiende/ l --> nd
n. /dwɔl/ *voice (sg.)* --> /dwɔnde/ l --> nd

- the alveolar lateral approximant /l/ can change in few cases also with other consonants such as /t/, /c/ and /k/ as shown in the following examples. The behaviour of /l/ will be better analysed in a further paragraph.

o. /dɪɛl/ *goat (sg.)* --> /dɪɛk/ l --> k
p. /lɪɛl/ *grave (sg.)* --> /lɪɛt/ l --> t
q. /àgúlú/ *pot (sg.)* --> /àgùcè/ l --> c

- the fricatives /f/, /s/, /h/ and the dental nasal compound /ɲɗ/ don't have any counterpart and the nouns with these consonants in root-final position don't change in the formation of the plural, which occurs by the addition of the suffix /-ni/ as in the following examples:

r.	/dóhó/	<i>village (sg.)</i>	-->	/dòhni/
s.	/múófù/	<i>blind man (sg.)</i>	-->	/mùòfni/

- in some nouns there are no changes in the last consonant of the stem. Heusing (2004:155) sees this as a possible degradation of the consonant alternation in the evolution of the language. E.g.:

t.	/òsyép/	<i>friend (sg.)</i>		/òsyèpê/	<i>friends (pl.)</i>
u.	/wác/	<i>word (sg.)</i>		/wècè/	<i>words (pl.)</i>
v.	/gòk/	<i>shoulder (sg.)</i>		/gókê/	<i>shoulders (pl.)</i>

- the nasal compound /ɲɗ/ has no counterpart in Luo. It could be supposed, that the counterpart of this nasal compound could have been the dental nasal stop /ɲ̥/, now assimilated to /n/, but there are no known examples of nouns with a root-final consonant change from /n/ to /ɲɗ/.

3.2 Modified forms of the noun: status constructus, plural and possessive forms

Luo nouns can be classified in three main groups: (i) nouns which are characterised by prefixes and form their plural with a different prefix, (ii) nouns which form their plural by suffixes and eventual sound changes in the stem, and (iii) a small group of irregular nouns, which apparently don't follow any common rule in the formation of the plural.

The Luo noun appears in two forms, the status absolutus, which coincides with its singular form, and the status constructus, which is used to build the plural and forms participating in genitive constructions. There are two basic processes taking place in the formation of plurals: suffixing and sound change (Omondi 1982:87f). The latter is also the

main process which occurs in the formation of the status constructus and involves a consonant change (as shown in the previous paragraph) and a tone change. The formation of the plural may also involve a change of the vowel /a/ to /e/, e.g. the plural of /kitâbù/ ‘book’ is /kitépè/. The change in the tone in the formation of the plural can be summarised in the following table (Omondi 1982:93):

<u>Root</u>	<u>Change to</u>	<u>Suffix</u>
Low (`)	High (´)	Falling (^)
High (´)	Low (`)	Low (`)

3.2.1 Nouns forming their plural with suffixes

3.2.1.1 The suffix /-ε/

The most common way of formation of the plural is by the addition of the suffix /-ε/ to the status constructus of the noun. Heusing (2004:141) and Gregersen (1974:106) state that the suffix added is a general /-E/, which could mean either /-e/ or /-ε/ depending on the ATR quality of the stem. However, I agree with Omondi (1982:90) in the recognition that the suffixed vowel is rather the open front middle vowel /-ε/, which has [-ATR] quality and undergoes to vowel harmony becoming /-e/ when suffixed to a [+ATR] dominant stem, as the following examples can show (note also the change in the tone as per the described pattern):

/bòr/	<i>boil (sg.)</i>	/bóc-ê/	<i>boils (pl.)</i>
/bùr/	<i>hole (sg.)</i>	/búc-ê/	<i>holes (pl.)</i>

In the formation of the possessive construction in its singular form the nomen regens appears in its status constructus without any suffix (the eventual vowel change that may occur in the formation of the plural doesn’t occur in this case). The nomen rectum follows the nomen regens. The plural form of the nomen regens is often same as the plural form of the noun. The following example taken from Omodi (1982:94f) and Tucker (1994:34-37) explain this behaviour:

<u>Singular</u>	<u>Plural</u>	<u>Status construtus sg.</u>	<u>Status constructus pl.</u>
/alɔt/	/alɔdɛ/	/alɔd ruoɗ/	/alɔdɛ ruoɗ/
<i>vegetable</i>	<i>vegetables</i>	<i>vegetable of chief</i>	<i>vegetables of chief</i>
/cak/	/cagɛ/	/cag ruoɗ/	/cagɛ ruoɗ/
<i>milk</i>	<i>milks</i>	<i>milk of chief</i>	<i>milks of chief</i>
/agulu/	/aguce/	/aguc ruoɗ/	/aguce ruoɗ/
<i>pot</i>	<i>pots</i>	<i>pot of chief</i>	<i>pots of chief</i>
/koɗi/	/koɗɛ/	/koɗ oduma/	/koɗɛ oduma/
<i>seed</i>	<i>seeds</i>	<i>seed of maize</i>	<i>seeds of maize</i>
/pap/	/pewe/	/paw Kano/	/pawɛ/ or /pewe Kano/
<i>plain</i>	<i>plains</i>	<i>the plain of Kano</i>	<i>the plains of Kano</i>

When the genitive is expressed by possessive pronouns there are two ways this may occur when the nomen regens is in its singular form (1982:96). There is a set of personal pronouns functioning as possessor: /ná/, /ní/, /né/ in the singular, and /wá/, /ú/, /gí/ in the plural. These can be simply postponed to the singular nomen regens in its status absolutus (see the examples in the (a) column), or they can appear in contracted forms which are assimilated as suffixes to the nomen regens in its status constructus (examples in the (b) column). It has to be noted that the pronouns for the 2nd person singular /ní/ and plural /ú/ are [+ATR] dominant and they affect [-ATR] stems in the vowel harmony. All other forms of the personal pronouns are [-ATR]. In the case of a plural nomen regens (c) the expression of the possessive relation with personal pronouns is formed by postponing possessive pronouns in their extended form, similarly as what happens in (a). In this case there is no assimilation.

<u>(a) nomen regens sg.</u>	<u>(b) nomen regens sg.</u>	<u>(c) nomen regens pl.</u>
/agulu-na/	/aguca/	/aguce-na/
<i>my pot</i>	<i>my pot</i>	<i>my pots</i>
/alɔt-na/	/alɔda/	/alɔdɛ-na/
<i>my vegetable</i>	<i>my vegetable</i>	<i>my vegetables</i>
/agulu-ni/	/aguci/	/aguce-ni/
<i>your pot</i>	<i>your pot</i>	<i>your pots</i>

(a) <u>nomen regens sg.</u>	(b) <u>nomen regens sg.</u>	(c) <u>nomen regens pl.</u>
/alɔt-ni/	/alodi/	/alɔdɛ-ni/
<i>your vegetable</i>	<i>your vegetables</i>	<i>your vegetables</i>
/agulu-gɪ/	/agucgi/	/aguɛ-gɪ/
<i>their pot</i>	<i>their pot</i>	<i>their pots</i>
/alɔt-gɪ/	/alɔdgi/	/alɔdɛ-gɪ/
<i>their vegetable</i>	<i>their vegetable</i>	<i>their vegetables</i>

There are few nouns that form their plural with the suffix /-i/ instead of /-ɛ/. Their behaviour in the formation of the plural and of the status constructus is otherwise the same as for the nouns forming their plural with the suffix /-ɛ/, e.g.:

<u>Singular</u>	<u>Plural</u>	<u>Status constructus sg.</u>	<u>Status constructus pl.</u>
/gùòk/	/gúógî/	/guog ruot̩/	/guogi ruot̩/
<i>dog</i>	<i>dogs</i>	<i>dog of chief</i>	<i>dogs of chief</i>
/ruot̩/	/rúóǵî/	/ruoǵ pɪŋ/	/ruoǵi pɪŋ/
<i>chief</i>	<i>chiefs</i>	<i>chief of the land</i>	<i>chiefs of the land</i>

3.2.1.2 The suffix /-ni/

There is a smaller group of nouns which form their plural by adding the suffix /-ni/. These are all the nouns having as root-final consonant one not subject to consonant change, namely /f/, /s/, /h/ and /ŋd/. This includes also all singular nouns having as root-final consonant a nasal compound (e.g. /lwanda/ (sg.) ‘rock’ – /lwendni/ (pl.)). Apart from these nouns, there are also other nouns which can have a plural form with the suffix /-ɛ/ or also alternatively a plural form with the suffix /-ni/, often ones having /l/ as root-final consonant (Omondi 1982:95ff). Such substantives follow different patterns of formation of the status constructus, depending on the involved suffix. The suffix /-ni/ is [+ATR] dominant and due to vowel harmony the stems to which it is suffixed become [+ATR] as well. According to Tucker (1994:141) the choice between one form of the plural instead of another, when this is

possible, involves a connotation of the meaning: the suffix /-ni/ has a more general meaning, whereas the plural with /-ɛ/ a more specific one.

<u>Singular</u>	<u>Plural</u>	<u>Status constructus sg.</u>	<u>Status constructus pl.</u>
/kúési/	/kuesni/	/kúési ruot̩/	/kuesni ruot̩/
<i>pipe</i>	<i>pipes</i>	<i>pipe of chief</i>	<i>pipes of chief</i>
/dóhó/	/dohni/	/doho ruot̩/	/dohni ruot̩/
<i>village</i>	<i>villages</i>	<i>village of chief</i>	<i>villages of chief</i>
/pàlà/	/pelni/ or	/pala ruot̩/ or	/pelni ruot̩/ or
	/pándê/	/pand ruot̩/	/pande ruot̩/
<i>knife</i>	<i>knives</i>	<i>knife of chief</i>	<i>knives of chief</i>
/agulu/	/agulni/ or	/agulu ruot̩/ or	/agulni ruot̩/ or
	/aguce/ or	/aguc ruot̩/ or	/aguce ruot̩/ or
	/agunde/	/agund ruot̩/	/agunde ruot̩/
<i>pot</i>	<i>pots</i>	<i>pot of chief</i>	<i>pots of chief</i>
/tipó/	/tipni/ or	/tipo ruot̩/ or	/tipni ruot̩/ or
	/típê/	/tip ruot̩/	/tipe ruot̩/
<i>shadow</i>	<i>shadows</i>	<i>shadow of chief</i>	<i>shadows of chief</i>

When the possessive construction involves personal pronouns, the nouns forming the plural with /-ni/ follow the same pattern as the nouns of the group (a) in the previous paragraph. Extended possessive pronouns don't spread their eventual [+ATR] quality to the whole stem, but only to the vowel after the root-final consonant (Tucker 1994:162). See the following examples:

<u>Singular</u>	<u>Nomen regens sg.</u>	<u>Nomen regens pl.</u>
/kúési/	/kúési-ná/	/kuesni-ná/
<i>pipe</i>	<i>my pipe</i>	<i>my pipes</i>
/dóhó/	/dóhó-ná/	/dohni-ná/
<i>village</i>	<i>my village</i>	<i>my villages</i>

<u>Singular</u>	<u>Nomen regens sg.</u>	<u>Nomen regens pl.</u>
/pala/	/pala-ná/ <i>or</i>	/pelni-ná/ <i>or</i>
	/panda/	/pende-ná/
<i>knife</i>	<i>my knife</i>	<i>my knives</i>
/pókô/	/pókó-ná/	/pokni-ná/
<i>gourd</i>	<i>my gourd</i>	<i>my gourds</i>

3.2.2 Prefixed nouns

3.2.2.1 The agentive prefix /ja-/

A large amount of nouns describing agents or classes of people are formed by prefixing /jà-/ to a word indicating their work or class, usually a verb or a substantive (Stafford 1967:43; Huntingford 1959:22f; Omondi 1982:99). The plural of these words is formed with the suffix /jò-/. In the majority of cases there is no change in the prefixed noun, but there can be exceptions (see the second group of nouns in the following examples). The prefixes /jà-/ and /jò-/ are also used to express nationality or the belonging to an ethnic group, as shown in the third group of examples (Tucker 1994:109).

<u>Singular</u>	<u>Plural</u>	<u>Meaning</u>	<u>from word</u>	<u>Meaning</u>
/jatɛlɔ/	/jɔtɛlɔ/	<i>leader</i>	/tɛlɔ/	<i>to lead</i>
/jakuo/	/jokuo/	<i>thief</i>	/kuo/	<i>theft</i>
/jatedo/	/jotedo/	<i>cook</i>	/tedo/	<i>to cook</i>
/jatic/	/jotic/	<i>worker</i>	/tiɟ/	<i>work</i>
/jabut/	/jobut/	<i>neighbour</i>	/but/	<i>near, close to</i>
/jacan/	/jɔcan/	<i>poor man</i>	/can/	<i>poverty</i>
/jamoko/	/jomoko/	<i>rich man</i>	/moko/	<i>wealth</i>
/jahera/	/jɔhɛra/	<i>lover</i>	/hɛra/	<i>love</i>
/jaciɛn/	/jociɛnde/	<i>devil</i>	/ciɛno/	<i>to haunt</i>
/jaduonɟ/	/jɔdɔngɔ/	<i>elder</i>	/duonɟ/	<i>greatness</i>

<u>Singular</u>	<u>Plural</u>	<u>Meaning</u>	<u>from word</u>	<u>Meaning</u>
/ɔ́lúô/	/ɔ́lúô/	<i>Luo person</i>		
/ɔ́acó`l/	/ɔ́acó`l/	<i>Acholi person</i>		
/ɔ́arâ`bu/	/ɔ́arâ`bu/	<i>Arab person</i>		

According to Omondi (1982:99) the prefix /ɔ́à-/ should be [+ATR] dominant and consequently all the vowels in the nouns formed with this prefix should have [+ATR] quality because of vowel harmony. She quotes the examples /ɔ́acak/ ‘milkman’ [+ATR] (the word /ɔ́ak/ ‘milk’ is [-ATR]) and /ɔ́amiel/ ‘dancer’ [+ATR] (the word /miel/ ‘dance’, as well as the plural of the agentive noun, /ɔ́amiel/ dancers, are [-ATR]). However this assumption is not shared by any other author. Although in the works by Stafford (1967) and Huntingford (1959) there is no mention about vowel harmony, the above examples /ɔ́atelo/ ‘leader’ and /ɔ́ahera/ ‘lover’ taken from these sources, both [-ATR], ignore the possibility that the prefix /ɔ́à-/ could be [+ATR] dominant. Tucker (1994:16,24) on the other hand describes exhaustively the phenomenon of vowel harmony dividing the affixes in three categories: (a) strong ([+ATR] dominant), (b) neutral (preserving their ATR quality and not influencing the ATR quality of the prefixed or suffixed stems), and (c) weak (subject to changes depending on the ATR quality of the stem). He classifies the prefix /ɔ́à-/ as a weak prefix, and so not able to influence the ATR quality of the prefixed stem. In this work Tucker’s thesis will be supported.

3.2.2.2 The diminutive prefix /ɔ́a-/

The prefix /ɔ́a-/ can be used to form diminutives of any word. In the plural it is changed to /ɔ́ni-/. When forming the plural the prefixed noun changes as well according to the rules for the plural. The diminutive can also be expressed by the adjective /matin/ (sg.) - /matindo/ (pl.) ‘small’, e.g. /guok matin/ ‘small dog, puppy’ - /guogi matindo/ ‘small dogs, puppies’ (Stafford 1967:44; Huntingford 1959:23; Omondi 1982:98f).

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>basic stem</u>	<u>Meaning</u>
/ɔ́naguok/	<i>puppy</i>	/ɔ́niguogi/	/guok/	<i>dog</i>
/ɔ́nagweno/	<i>chicken</i>	/ɔ́nigwen/	/gweno/	<i>fowl</i>
/ɔ́narombo/	<i>lamb</i>	/ɔ́nirombe/	/rombo/	<i>sheep</i>
/ɔ́nadiel/	<i>kid</i>	/ɔ́nidiek/	/diel/	<i>goat</i>
/ɔ́nakwar/	<i>grandchild</i>	/ɔ́nikwaye/	/kwaro/	<i>grandfather, ancestor</i>

3.2.2.3 The prefix /ra-/

The prefix /ra-/ can have different functions: it can denote names of instruments, or it can have a descriptive function. When forming the plural the prefix /ra-/ doesn't change (only in some few exceptions it can change to /rɔ-/), but the prefixed noun changes according to the rules for the plural (Stafford 1967:43; Huntingford 1959:37; Omondi 1982:99f). It can also be used to describe colours of male cattle. This last function will be discussed in a separate paragraph.

Instrumental function:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>basic stem</u>	<u>Meaning</u>
/raum/	<i>cover, lid</i>	/raumbe/	/umo/	<i>to cover</i>
/rapur/	<i>hoe</i>	/rapuye/	/puro/	<i>to hoe, to cultivate</i>
/radin/	<i>stopper, cork</i>	/radinde/	/dino/	<i>to block up</i>
/ragwar/	<i>fork</i>	/rogwerni/	/gwaro/	<i>to scratch</i>

Descriptive function:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>basic stem</u>	<u>Meaning</u>
/raŋɔl/	<i>lame person</i>	/raŋɔnde/	/ŋɔl/	<i>lameness</i>
/rakuom/	<i>hunchback</i>	/rakuombe/	/kuom/	<i>hump</i>
/rabám/	<i>cripple</i>	/rabámbe/	/bam/	<i>crooked</i>
/rabɔndɔ/	<i>bald person</i>	/rabɔ́nde/	/bɔndɔ/	<i>baldness</i>
/ralep/	<i>quarrelsome</i>	/rɔlép/, /ralepe/	/lep/	<i>tongue</i>
/raraca/	<i>bad man</i>	/rarécê/	/rac/	<i>bad</i>
/rasira/	<i>cross person</i>		/sirɔ/	<i>oppose</i>

In Odaga's 'Dholuo-English Dictionary' (2005:292ff) there are more than 50 records of nouns prefixed with /ra-/. A complete list of this nouns is provided in the appendix 7.1. According to Huntingford (1959:37) the nouns formed with the prefix /ra-/ used with its descriptive function indicate physical and mental defects in people. This seems to be true in most of the cases, however there are also some words denoting positive or neutral qualities, e.g.:

/racam/	<i>left handed person</i>
/racic/	<i>right handed person</i>
⟨radoho⟩	<i>a polygamist</i>
⟨ragama⟩	<i>a hefty person, tall and big bodied</i>
⟨raluar⟩	<i>grey haired</i>
⟨randiga⟩	<i>a tall, hefty person; a cow with large long horns</i>
⟨rang'ongo⟩	<i>big, huge, hefty, stout</i>
/rategɔ/	<i>powerful, strong, also said of someone with stamina and perseverance, hard working</i>

Agentive and descriptive morphemes may also occur together. In this case the descriptive morpheme /-ra-/ always follows the agentive /ja-/, e.g. /jarabam/ ‘crippled person’ (Omondi 1982:100). Another word formed with both morphemes is the word used by the Luo to refer to Europeans: /jaracar/ (sg.) - /joracar/, /joracé`re/ (pl.) (lit. a white person - people) (Tucker 1994:510).

3.2.2.4 The prefix /mɪ-/

The prefix /mɪ-/ seems to have different functions in Luo. Tucker (1994:104) recognises its original function in the formation of verbal nouns, e.g.:

/mí-dényó/	<i>hunger</i>	-->	/dényɔ/	<i>to hunger</i>
/mí-riambó/	<i>lies</i>	-->	/riambɔ/	<i>lo lie</i>
/mí-riá`sia/	<i>lies</i>	-->	/riasɔ/	<i>to lie</i>
/mí-éro/	<i>a quarrel</i>	-->	/ero/	<i>to provoke a quarrel</i>

Similarly as what has been seen concerning the prefix /ra-/, also here a combination of this prefix with the agentive prefix /ja-/ may be possible in some cases, e.g. in the words ⟨jamiriambo⟩ and ⟨jamiriasia⟩ ‘liar’ (Odaga 2005:141).

This prefix has also a descriptive function similarly as the prefix /ra-/. It seems to be a borrowing from a neighbouring Bantu language, most probably from Swahili (the prefix *m-* / *mu-* in Swahili indicates the singular class for persons). This can be confirmed also by the

fact that some of these nouns build the plural with the prefix *wa-* (Swahili prefix of the plural class for person), which is otherwise unknown in Luo (Dimmendaal/Jakobi 2020:398; Tucker 1994:104,133). From the following examples taken from Odaga (2005) (a full list of nouns with the prefix /mɪ-/ is provided in the appendix 7.2) it is possible to note the uncommon formation of the plurals. In some cases there is no change in the root of the noun, in some others the plural will be formed with the suffix /-ni/ accompanied by an eventual sound change. In some cases both plurals are possible.

/mígó`ndia/	<i>tight fist, avaricious, cf. <jamigundia></i>
<milore>	<i>insolent, show off, jester</i>
<mirana>	<i>stupid, half wit, weakling, cf. <orana></i>
<misumba> ^{3,4}	<i>bachelor, slave</i>
/misó`ngɔ/	<i>European, (pl.) /misó`ngê/, /wasó`ngɔ/, /wasó`ngɛ/ (Tucker 1994:133)</i>

The prefix /mɪ-/ is also used for all the words indicating connotations of ‘wife’, ‘child’ and ‘woman’, as the following examples are showing (Odaga 2005):

<miaha>	<i>spouse, bride, (pl.) <miehini> --> see also /miá·ha/, (pl.) /miehni/ (Tucker 1994:522)</i>
<micholo>	<i>midwife, cf. <jacholo>, <cholo> --> <cholo> = midwifery</i>
<mikayi>	<i>first wife of a polygamist --> see also /míkáyɪ/, (pl.) /mikeynî/, /wakenî/ (Tucker 1994:133)</i>
<min>	<i>mother, (pl.) <mine></i>
<mihia>	<i>child, baby --> <wahiya> (n.) children, (sing.) <muhiya>, <mhiya> --> see also /mihra/, (pl.) /wahra/ (Tucker 1994:133)</i>
<miderma>	<i>an only child, begotten by his/her parents</i>
<migumba>	<i>barren, an old woman who never had a child</i>
<misiala>	<i>fiancée not yet made official</i>

The word <micholo> can be found also in Acholi as /lâcɔ̀lâ/ ‘midwife’ (the prefix /là-/ in Acholi is an agentive morpheme as /ja-/ in Luo). Similarly as in Luo this word derives from

³ Odaga (2005:355) indicates *wasumbni* ‘slaves’ as plural for *musumba*

⁴ Tucker (1994:133) quotes /wasumbnî/ ‘bachelor’ as plural for /misɔ·mba/

/còlà/ ‘midwifery’, which corresponds to the Luo <cholo> (Crazzarola 1955:204). The Pãri word for ‘midwife’ is <nyää>, (pl.) <nyäkke> , which seems to have a different origin (Mutho 2020:193)

The Luo word <mikayi> ‘first wife’ could be related to the word <kayo> ‘first born’ (see also Tucker (1994:512) /kayô/, (pl.) /kεcε/). The latter term is found also in Shilluk with the same meaning ((pl.) <kayi>). In Shilluk <kayo> is also a verb meaning ‘to give birth the first time’ (Kohnen 1933:244).

3.2.3 Irregular nouns

In the Luo language occur also some irregular nouns, which either don’t follow the common rules of formation of the plural, or have plural forms that show no morphological relationship to the singular ones (Omondi 1982:94; Stafford 1967:62; Huntingford 1959:23,32f; Tucker 1994:126). Here are some examples of such nouns:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/ḡano/	man, male	/ji/		/jɔ-/
/ḡato/	man, person	/ji/		/jɔ-/
/ḡákô/	woman, wife	/món/	/ci-/	/mond-/
/ḡakɔ/	girl, daughter	/jiri/	/nar-/	/ji-/
/ḡatɿ/	boy, child	/jɪtindo/	/ḡatɿn-/	/jɪtind-/
/dɪcwɔ/	husband, male	/cwɔ/	/cwɔr-/	/cwó-/
/kwarɔ/	grandfather	/kúyéê/, /kúérê/	/kwar-/	/kuere-/
/wuoro/	father	/wúónê/, /wegê/	/wuon-/ ⁵	/wuone-/
	mother	/mine/, /mégê/	/min-/ ⁵	/mine-/
/wuowi/	son	/yawuowi/	/wuod-/	/yawuot-/
/wuoyi/	son	/yawuoyi/	/wuod-/	/yawuot-/
/ḡian/	cow, cattle	/ḡok/	/ḡer-/	/ḡho-/
/gwɛnɔ/	fowl	/guen/	/gwɛnd-/	/gwɛnd-/
/lɛ/	axe	/lɛḡi/	/ley-/	/lɛḡi-, /leye-/

⁵ These forms are referred to genitive compounds with other nouns, but in combination with personal pronouns they may vary (see paragraph 4.6.2)

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/gi/	<i>thing</i>	/gik/	/gir-/	/gi-/
/pi/	<i>water</i>	/pige/	/pig-/	/pige-/
/yo	<i>road</i>	/yore/	/yor-/	/yore-/
/ɲarɔɲɔ/	<i>kidney</i>	/ɲirɔkɛ/		
/kwɛr/	<i>hoe</i>	/kwɛ/, /kueye/	/kwɛy-/	/kwɛyɛ-/
/wɛr/	<i>song</i>	/wende/	/wend-/	/wende-/
/tic/	<i>work</i>	/tije/, /tiye/	/tic-/ , /tij-/	/tije-/ , /tiye-/
/diɛl/	<i>goat</i>	/diek/	/diɛnd-/	/diek-/ , /diɛndɛ-/
/liɛl/	<i>grave, ant-hill</i>	/liete/	/liɛnd-/	/liete-/ , /liɛndɛ-/
/ɔt/	<i>house</i>	/udi/	/ɔd-/	/ute-/

Many of the irregular nouns in the examples are referred to kinship terms. These will be analysed in a separate paragraph and compared to their equivalents in other languages (see 4.6.2). Other irregular nouns are the ones related to cattle and nouns with /l/ as root-final consonant in their singular form. Their plural forms are often unpredictable, for /l/ can change to /nd/, /t/, /k/ or /c/. They will be also analysed separately and compared with their forms in other languages in paragraph 4.2.2.

3.3 Sex-indicating morphemes in Luo

According to Tucker and Bryan (1966:417) there is no grammatical gender in Western Nilotic languages and in Luo as well. The personal pronoun for the 3rd person singular /én-/ refers to both males and females without distinction. However, in Luo there are some morphemes which distinguish natural sexes productively. These are the naming morphemes, used to produce proper names of persons (Omondi 1982:100), and some other morphemes which can be found in kinship terms in order to differentiate between sexes. Furthermore, there are sex-indicating terms for livestock, especially for cattle, used to classify animals on the basis of some distinctive traits such as colour. All these elements will be analysed in the following paragraphs.

3.3.1 Proper names

Most of the proper names in Luo are formed by particular morphemes denoting the sex of the person: /a-/ for female, and /ɔ-/ for male. These are prefixed to nouns which are describing some conditions occurring when the child was born: the time of birth, climatic or social conditions at the time of birth, or also to differentiate the first born twin from the second born one (Ojijo 2012:22ff; Omondi 1982:100). E.g.:

<u>Female</u>	<u>Male</u>	<u>Meaning</u>	
⟨Achieng'⟩	⟨Ochieng'⟩	<i>born with the sun shining</i>	--» ⟨chieng'⟩ = <i>sun</i>
⟨Akoth⟩	⟨Okoth⟩	<i>born during rainy season</i>	--» ⟨koth⟩ = <i>rain</i>
⟨Akinyi⟩	⟨Okinyi⟩	<i>born at dawn</i>	--» ⟨okinyi⟩ = <i>dawn, early morning</i>
⟨Atieno⟩	⟨Otieno⟩	<i>born at night</i>	--» ⟨otieno⟩ = <i>night</i>
⟨Akeyo⟩	⟨Okeyo⟩	<i>born at harvest time</i>	--» ⟨keyo⟩ = <i>to harvest</i>
⟨Ajwang⟩	⟨Ojwang⟩	<i>born after father died</i>	
⟨Apiyo⟩	⟨Opiyo⟩	<i>first born of a pair of twins</i>	
⟨Adongo⟩	⟨Odongo⟩	<i>second born of a pair of twins</i>	

3.3.2 Kinship terms

As already seen in 3.2.3 many terms indicating personal relationship or kinship have irregular forms. Kinship terms will be discussed in details in 4.6.2 and compared to those in other Western Nilotic languages. However, in this introductory paragraph the focus will be pointed to some terms having a dichotomy of prefixes to differentiate between male and female sex. In Luo there are many kinship terms with a common stem determining the degree of blood relationship, which can be differentiated into a male form with the prefix /ɔ-/ and a female one characterised by the prefix /ja-/ (Tucker 1994:215ff; Huntingford 1959:33ff). See the following examples:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/ɔ-mí n/	<i>brother</i>	/o-mégê/	/ja-mín/	<i>sister</i>	/ní-mégê/
/o-ké wo/	<i>nephew</i> ⁶	/o-képê/	/ja-kewo/	<i>niece</i> ⁷	/ní-képê/
/ɔ-wá t/	<i>male relative</i>	/o-wétê/	/ja-wat/	<i>female relative</i>	/ní-wétê/

The prefix /ɔ-/ is used in Luo for male proper names, as seen in the previous paragraph, and also as inflected subject personal pronoun of the 3rd person singular in verbs, in this case referring indistinctly to both sexes (e.g. /(én) ó-tédo/ ‘he, she is cooking’). In the case of kinship terms this prefix is found in both the singular and plural forms. The female on the other hand has a specific prefix /ni-/ for the plural form. The same prefixes /ja-/ (sg.) and /ni-/ (pl.) are used to build the diminutive form of nouns (see 3.2.2.2). It is supposed that they originate from the word ⟨nyako⟩ /jáko/ ‘girl’ or ‘daughter’, which has as plural ⟨nyiri⟩ /jiri/. The status constructus of the singular form is ⟨nyar⟩, meaning ‘daughter of’ and used in compounds (e.g. ⟨nyar ng’ato⟩ ‘somebody’s daughter’, ⟨nyar Ger⟩ ‘the daughter of Ger’). It has to be noted that /ja-/ in combination with a proper name or a family name means instead ‘female member of that specific clan or family’ (e.g. ⟨nya-Ger⟩ ‘female member of Ger clan’) (Tucker 1994:216).

3.3.3 Colours and names for cattle

In Luo there are many terms used to indicate colours, shades of colours or combinations of them. In this paragraph a list of terms will be presented and basic considerations will be done. A deeper analysis will follow in the next chapter. The following table shows examples of terms for colours taken from the dictionaries by Odaga (1997 and 2005):

<u>Colour</u>	<u>Meaning</u>	<u>Notes</u>
⟨rateng⟩	<i>black</i>	
⟨dichol⟩	<i>black</i>	used for women and female animals
⟨rachilo⟩	<i>black</i>	
⟨rakwaro⟩	<i>red</i>	
⟨makwar⟩	<i>red</i>	

⁶ Son of sister

⁷ Daughter of sister

<u>Colour</u>	<u>Meaning</u>	<u>Notes</u>
⟨onuria⟩	yellow	shinning, whitish, yellowish in colour
⟨ratong' gweno⟩	yellow	⟨tong' gweno⟩ --» hen's egg
⟨majand lum⟩	green	--» lemon grass
⟨majan⟩	green	--» tea leaves
⟨ralum⟩	green	⟨lum⟩ --» grass
⟨ratiglo⟩	blue	cf. /kalabóglô/, /dibóglô/ blue eyes (Tucker 1994:106); the colour of a certain shade of bluish-grey of the eyes of cows with special arch marking (Odaga 2005:150)
⟨rambulu⟩	blue	
⟨ralik⟩	grey	grey markings in colour, used for chicken only
⟨rathuol⟩	grey	greenish, gray, greenish black
⟨randiek⟩	grey	ash grey in colour; cf. /ondiek/ 'hyena', said to sleep in ashes (Tucker 1994:252)

Many of the listed terms have the prefix /ra-/. As already seen in 3.2.2.3 this prefix has a descriptive function, and it seems that this may apply also when referring to colours. According to Tucker (1994:252) this prefix is used for male livestock or for colour words which don't distinguish sexes. Some terms are also derived from other nouns and used for colours referring to a particular characteristic of the original object (e.g. ⟨ratong' gweno⟩, ⟨majand lum⟩). Grammatically colour terms are adjectives and they can be used in a predicative or in a qualifying way. If they follow a noun their function is predicative (e.g. /gweno raten/ 'the fowl (cock) is black'). To be used in a qualifying way the relative prefix /ma-/ has to be attached in front of the stem (e.g. /gweno maraten/ 'a black fowl (cock)') (cf. Tucker 1994:252; Stafford 1967:8; Huntingford 1959:4f). Some of the terms in the list already have the prefix /ma-/ in their basic form. These can be used only in a qualifying way.

The following table shows some terms which can be referred only to livestock (Odaga 2005). Here it is already possible to note dichotomy between the prefix *ra-* used for male cattle, and the prefix *di-* for female. A detailed analysis of the morphology of sex-indicating terms will be done in 4.6.3.

<u>Term</u>	<u>Meaning</u>
⟨ <i>dibondo</i> ⟩	a cow with spotted, white tuft on the forehead, said of female livestock, cf. ⟨ <i>rabala</i> ⟩
⟨ <i>dibuoro</i> ⟩	female livestock, light brown, beige or cream in colour
⟨ <i>rabala</i> ⟩	a bull with a white spot on the head; a person with a bald head
⟨ <i>dikiyo</i> ⟩	black and white on livestock female only, cf. ⟨ <i>rachich</i> ⟩
⟨ <i>rachich</i> ⟩	black and white in colour, used for male livestock and maize grain
⟨ <i>dipondo</i> ⟩	black o a cow with white spots, cf. ⟨ <i>dibondo</i> ⟩
⟨ <i>rabok</i> ⟩	animals – light brown in colour
⟨ <i>rabuor</i> ⟩	light brown, khaki, buff coloured
⟨ <i>raburu</i> ⟩	proper name; dusty brown
⟨ <i>radhayi</i> ⟩, ⟨ <i>radhaya</i> ⟩	dark red in colour, found mainly in cockes and some birds

4. Comparative analysis

The morphological features described in the previous chapter for Luo will now be compared to the corresponding ones in the related languages Shilluk, Pāri, Anywa and Acholi. The comparative analysis should enable to understand whether a particular phenomenon is specific for Luo, or is shared with other languages and to what degree. It is also a useful method to investigate the origin of certain features and to explain morphological processes. Special attention will be put on the morphology of the noun and the way the plurals and other modified forms are created. Sex-indicating terms will be treated in the last part of this chapter.

4.1 Consonant inventories

The consonant inventory of Luo was already described in 2.4. We have observed that some points of articulation such as fricatives and nasal compounds used in this language are otherwise very rare in other ones of the Western Nilotic branch. The following table compares different points and manners of articulation, as well as other features such as gemination in the languages analysed in this work.

	<u>Luo</u>	<u>Shilluk</u>	<u>Pāri</u>	<u>Anywa</u>	<u>Acholi</u>
Dental plosives	+	+	+	+	-
Dental nasal	-	+	+	+	-
Nasal compound	+	-	+	-	-
Fricatives	+	-	-	-	-
Gemination	-	+	+	+	-

Labial, alveolar, palatal and velar plosives are common to all these languages, as well as nasals, liquids and semivowels. The dental plosives /t/ and /d/ are also typical for Nilotic languages. However, in some cases these were assimilated to the alveolar plosives /t/ and /d/

as it has happened in Acholi and in Lango (Heusing 2004:67). See the following examples⁸ of the words for ‘woman’ and ‘cow’, all having the same origin:

	<u>Luo</u>	<u>Shilluk</u>	<u>Päri</u>	<u>Anywa</u>	<u>Acholi</u>
<i>woman</i>	/ḍákô/	/ḍâàcò/	/ḍaago/	/ḍâagó/	/daákô/
<i>cow</i>	/ḍiaŋ/	/ḍèàŋ/	/ḍiɛŋ/	/ḍiaŋ/	/dyaàŋ/

The dental nasal /ṇ/ is present in Shilluk, Päri and Anywa. In these languages the dentals /ṭ/, /ḍ/ and /ṇ/ stay in a consonant harmony contrasting with the alveolar stops /t/, /d/ and /n/ (Mackenzie 2016:14ff) (in Anywa there is an exception in the word /ḍâanó/ ‘person’ (Reh 1996:25) (cf. ⁹ Luo /ḍânô/, Shilluk /ḍânò/, Päri /ḍaang/, Acholi /daánô/)). As already mentioned in 3.3, in Luo /ṇ/ was probably assimilated to /n/, which generated some asymmetry in the dental-alveolar harmony. This can be seen, apart from the already mentioned example, also in other words, e.g.¹⁰:

	<u>Luo</u>	<u>Shilluk</u>	<u>Päri</u>	<u>Anywa</u>	<u>Acholi</u>
<i>breast</i>	/ṭuno/	/ṭiṇò/	/ṭuṇò/	/ṭuṇò/	/tuùnù/
<i>male, bull</i>	/ṭuɔn/	/óṭwɔṇ/	ṭwoṇ	/ṭuɔṇ/	/twɔɔn/

Nasal compounds can be found only in Luo and in Päri among the mentioned languages. According to Heusing (2004:69) a set of the five nasal compounds /mb/, /ṇḍ/, /nd/, /ɲ/ and /ŋg/ can be found also in Adhola and in Alur. Simeoni (1978:17) reports only /ŋg/ as nasal compound in the consonant inventory of Päri. However, through an analysis of the vocabulary it is possible to note, that also all the other four nasal compounds can be found in this language, e.g. /mb/ in <rombo> ‘sheep’, /nd/ in <nyipondo> ‘child’, /ɲ/ in <pwonyji> ‘to teach, imperative sg.’, /ṇḍ/ in <lwathinhdha> ‘my children’.

Among the languages which have been analysed in this work the fricatives /f/, /s/ and /h/ can be found only in Luo (with an exception for /f/ in Shilluk which will be discussed later). According to Tucker (1994:31f) the phonemic boundaries of /f/ and /h/ are difficult to be

⁸ Examples from: Tucker (1994) for Luo, Westermann (1912) for Shilluk, Andersen (1988) for Päri, Reh (1996) for Anywa, Crazzarola (1955) for Acholi

⁹ Examples from: Tucker (1994) for Luo, Gilley (2000) for Shilluk, Andersen (1988) for Päri, Crazzarola (1955) for Acholi

¹⁰ Examples from: Tucker (1994) for Luo, Westermann (1912) for Shilluk, Simeoni (1978) and Storch (2005) for Päri, Crazzarola (1955) for Acholi

determined, for in some cases /h/ alternates with /k/ (e.g. /halángá/ – /kalángá/ ‘skin disease of cattle’ (ibid. 32)), whereas in other cases there is an alternation among /f/, /h/ and /p/ (e.g. /ɔ́hóŋ/ - /ɔ́fóŋ/ - /ɔ́póŋ/ ‘heel’ (ibid. 32); cf. Acholi /póóŋ/, /òpóóŋ/ (Blackings 2009:155)).

According to Remijsen (2011:113f) /f/ doesn’t have a phonemic status in Shilluk, for it alternates with /p/. Kohnen (1933:4) as well states that /p/ and /f/ are interchangeable. Westermann (1912:5) on the other hand includes /f/ in the consonant inventory of Shilluk without any further specification. However, he states that many names for places are formed with the prefix *páá-*, which comes from *pác* ‘village’, but in the examples he quotes names starting with *fá-* as well (ibid. 28). This can be seen as a further proof of the allophony between /p/ and /f/ in Shilluk. The following table shows some examples of transcription of the same word from different authors:

	<u>Westermann (1912)</u>	<u>Kohnen (1933)</u>	<u>Gilley (2000)</u>
<i>field</i>	fwōḡḡ	pwōḡo	pwōḡḡ
<i>water</i>	pi - fi	pi - fi	
<i>village</i>	pác	pac - fac	pāŋ
<i>to teach</i>	fwōŋo	pwōŋ - fwōŋ	
<i>hare</i>	áfóǎḡ	apwǎḡo	ápwǎḡḡ

The voiceless alveolar fricative /s/ is well represented in the actual vocabulary of Luo. However, the words starting with /s/ or containing it seem to be mostly borrowings from other languages, especially from Swahili. According to Köhler (1955:17), at the time of the beginning of the studies of Nilotic languages, /s/ could not be found in any Western Nilotic language, including Luo. The first Luo vocabulary by Wakefield, dated 1887, includes only two words containing this consonant, <Nyasái> ‘God’ and <msumba> ‘slave’, both of Bantu origin.

Acholi, similarly as Luo, borrowed many nouns from Swahili, which can be found in it’s actual vocabulary. It has to be noted, that loan words beginning with /s/ in the original language are reproduced with the palatal plosive /c/ in Acholi, whereas in Luo they maintained the original sound, e.g.¹¹:

¹¹ Examples from: Odaga (2005) for Luo, Blackings (2009) for Acholi

	<u>Luo</u>	<u>Acholi</u>	<u>origin</u>
<i>telephone</i>	⟨ <i>simo</i> ⟩	⟨ <i>cim</i> ⟩ /cíim/	Swahili --> simu
<i>school</i>	/skul/	/cùkúùl/	English
<i>sugar</i> *	/sukari/	⟨ <i>cukari</i> ⟩ /cùkári/	Swahili --> sukari

* cf. also Shilluk *tukar* (Kohnen 1933:298), Pāri *cukwar* (Simeoni 1978:111). The Swahili word *sukari* is itself a loan word from the Arabic سَكَّرَ /sukkar/.

In Luo some few words are formed with the prefix /sɪ-/. Its function is not clear and it seems to have multiple ones, which in any case are not productive anymore. In the word /sígáná/ ‘story’ it behaves as a nominaliser (from /ganɔ/ ‘to narrate, tell stories’ (Odaga 2005:105; Tucker 1994:104)). In other cases it is used as a prefix for some animals, e.g. /síbúor/ ‘lion’ (cf. Acholi, Alur, Copi /la-bwor/, Belanda Bor /dú-bóór/, Labwor /kì-bwòr/ (Storch 2005:342)) or ⟨*silwal*⟩ ‘red colour (male)’ (Odaga 2005:321) (cf. Pāri ⟨*cilwal*⟩ ‘red male dog’ (Simeoni 1978:25), Anywa /cílwáal/ ‘red female sheep’, /lwàal/ ‘red male dog’ (Reh 1996:147)). The possible origin(s) of the diffusion of /s/ in Luo is a matter that was not deeply analysed yet and would need further research.

In Shilluk, Pāri and Anywa the gemination of the root-final consonant is common and can be found especially in plural forms and in the status constructus of some nouns. This phenomenon is otherwise absent in Luo and in Acholi. Root-final consonant gemination will be analysed in details in the next paragraph.

4.2 Modified noun forms in Shilluk, Pāri, Anywa and Acholi

Although many scholars tried to analyse the formation of the modified forms of the noun in Western Nilotic languages, which includes the plurals as well, with the intention to define some common rules, there are still no studies which can describe it exhaustively in its totality. The formation of the modified forms is very variegated and every single language has developed patterns which differ in a more or less complex way from what could have been the original system. Although for some languages have been identified categories of nouns following the same behaviour, in some cases the changes which apply for the modified forms

cannot be attributed to any pattern, so these forms appear completely irregular. Such nouns are probably remnants of an old system so preserved in the synchrony of the languages, but not productive anymore. An evident proof of this are kinship terms, which will be analysed in a further paragraph.

The main processes in modified forms include sound change of the root-final consonant, which can involve a shift from a consonants to a different one, nasalisation or gemination, and/or a change in the ATR quality of the vowels, and a change in tone. The comparison of the different systems in this work will be based on the approach used by Reh (1996:94) for Anywa and later adopted also by Gilley (2000:2) for Shilluk. In this analysis the singular and plural forms of the nouns will not be classified according to their grammatical number, but to their morphological number instead, distinguishing three main categories: ‘opaque’, the less marked form which has a CVC ¹² root structure in all languages, and on the other side ‘singularised’ and ‘pluralised’ forms, which are marked. The following table summarises this distinction (Reh 1996:94; Gilley 2002:2):

Grammatical number system:	singular		plural	
Morphological number system:	singularised	opaque		pluralised

The possible categories resulting from the combination of the two systems are the following (the examples in the following table are from Shilluk (Gilley 2000)):

- Singular: morphologically opaque, grammatically singular (e.g. /léb/ ‘tongue’ (sg.) - /lḕèb/ (pl.)) --> this form is opaque, for it is not marked (it appears with the simplest CVC structure)
- Collective: morphologically opaque, grammatically plural (e.g. /lḕjò/ ‘tooth’ (sg.) - /lḕg/ (coll.)) --> the collective form is not marked (with the simplest CVC structure) and therefore classified as ‘opaque’, but grammatically plural, whereas the singular is marked with the suffix /-ɔ/
- Singulative: morphologically singularised, grammatically singular (e.g. /lwḕdò/ ‘finger’ (sg.) - /lwé̀èd/ (pl.)) --> in this case both the forms are

¹² CVC = consonant-vowel-consonant, where the first consonant may be also palatised or labialised (C_(j/w)VC)

marked (the grammatically singular by the prefix /-ɔ/ and the plural by vowel lengthening)

- Plural: morphologically pluralised, grammatically plural (e.g. all the plural forms from the previous examples /lɛ̀ɛ̀b/ and /lwé̀ɛ̀d/ are marked and grammatically plural)

4.2.1 Sound changes involving plosives, nasals and nasal compounds

The comparative analysis of sound changes in this paragraph will be conducted on a phonemic level. In this regard, the differences between voiced and voiceless plosives in root-final position will not be considered, for these are allophone in Anywa and Shilluk nouns (Remijsen 2011:113f; Reh 1996:34). According to Tucker (1994:31) also in Luo voiced plosives cannot stand in final position in CVC stems. The representations in Remijsen (2011), Gilley (2000) and Reh (1996) are phonemic, although each author uses a different system. In Remijsen (2011) all root-final plosives are represented by means of the relevant voiceless symbol, whereas in Gilley (2000) the voiced symbols were used. Reh (1996) on the other hand distinguishes root-final plosives highlighting them with capital letters for the voiced consonant. In order to avoid confusion resulting from different systems of representation, the one by Reh will be used in this comparative analysis.

The sound changes which occur in Luo were already explained in 3.1. The following table shows the processes taking place among plosives, nasals and nasal compounds in Anywa, Shilluk, Luo and Pări ¹³. In Acholi such sound changes are absent, except for some few irregular nouns.

¹³ Due to limited data no rule can be traced for Pări.

	<u>Anywa</u>	<u>Shilluk</u>	<u>Luo</u>	<u>Päri</u> ¹³
B	B --> mm (N+G) sg --> sc.sg m --> BB (P+G) pl --> sc.pl	B --> m (N) sg --> sc.sg *in some few cases spread to pl, sc.pl	m --> mb (NC) sg --> sc.sg, pl, sc.pl	no record
Ḑ	Ḑ --> ṁṁ (N+G) sg --> sc.sg ṁ --> ḐḐ (P+G) pl --> sc.pl	Ḑ --> ṁ (N) sg --> sc.sg *in some few cases spread to pl, sc.pl	ṁ is absent in Luo	Ḑ --> ṁ (N) sg --> sc.sg Ḑ --> ṁḑ (NC) sg --> pl
D	D --> nn (N+G) sg --> sc.sg n --> DD (P+G) pl --> sc.pl	D --> n (N) sg --> sc.sg *in some few cases spread to pl, sc.pl	n --> nd (NC) sg --> sc.sg, pl, sc.pl	nd --> nn (N+G) sg --> sc.sg
ʃ	ʃ --> ɲɲ (N+G) sg --> sc.sg ɲ --> ʃʃ (P+G) pl --> sc.pl	ʃ --> ɲ (N) sg --> sc.sg *in some few cases spread to pl, sc.pl	ɲ --> ɲɟ (NC) sg --> sc.sg, pl, sc.pl	no record
G	G --> ŋŋ (N+G) sg --> sc.sg ŋ --> GG (P+G) pl --> sc.pl	G --> ŋ (N) sg --> sc.sg *in some few cases spread to pl, sc.pl	ŋ --> ŋg (NC) sg --> sc.sg, pl, sc.pl	ŋ --> ŋg (NC) sg --> sc.sg

Abbreviations used: P = plosivisation; G = gemination; N = nasalisation; NC = change to the corresponding nasal compound; sg = singular; pl = plural; sc.sg = status constructus singular; sc.pl = status constructus plural

The table above shows the possible changes among plosives, nasals and nasal compounds in the analysed languages. In all the cases the change occurs among different manners of articulation at the same point of articulation. The changes are unidirectional in Shilluk (plosives become nasals) and in Luo (nasals become nasal compounds), whereas in Anywa these occur in both directions and always involve a gemination of the resulting sound

(plosives become geminated nasals and nasals become geminated plosives). See the following examples ¹⁴:

Shilluk:

/kwōɓ̃/	sg.	<i>sand</i>	/kwōɓ̃.̃-/	sc.sg
/ájwōgɔ́/	sg.	<i>magician</i>	/ájwōggì/	sc.sg.

Luo:

/im/	sg.	<i>ram</i>	/imbe/	pl.
/pín/	sg.	<i>country</i>	/pínɛ/	pl.

Anywa:

/lùoBò/	sg.	<i>lover</i>	/lùomm̃.-/	sc.sg
/kiDī/	sg.	<i>stone</i>	/kīnñ.-/	sc.sg
/room/	pl.	<i>sheeps</i>	/róoBB̃.-/	sc.pl
/tùoɒ̃/	pl.	<i>bulls</i>	/tùoDD̃.-/	sc.pl

The changes occurring in Pări seem to be more complex. However, due to limited data it is not possible to identify some common rules. The available examples (Simeoni 1978; Andersen 1989) enabled to identify the following sound changes occurring between the singular form and the status constructus singular:

- nasalisation of a plosive, e.g. *aweɬa* ‘pipe’ (sg.) --> *aweɬ̃ Uɲaɲ* ‘Uɲaɲ’s pipe’ (sc.sg)
- change from a nasal compound to a geminated nasal, e.g. *pondo* ‘son’ (sg.) --> *ponni Pugëri* ‘Pugëri’s son’ (sc.sg); *ukondo* ‘feather’ (sg.) --> *ukonni gwyeno* ‘hen’s feather’ (sc.sg)
- change from a plosive to a nasal compound, e.g. *rwōɬ* ‘chief’ (sg.) --> *rwōɬ̃de* (pl.); */kòɬ/* ‘rain’ (sg.) --> */kúuɒ̃dè/* (pl.)
- change from a nasal to a nasal compound, e.g. *ciŋo* ‘hand’ (sg.) --> *ciŋgi d̥aŋo* ‘man’s hand’ (sc.sg); *tɒŋo* ‘horn’ (sg.) --> *tɒŋgi d̥yaŋ* ‘cattle horn’ (sc.sg)

¹⁴ Examples from: Tucker (1994) for Luo, Gilley (2000) for Shilluk, Simeoni (1978) for Pări, Reh (1996) for Anywa

4.2.2 Sound changes of liquids

The lateral approximant /l/ in Luo changes normally to the alveolar nasal compound /nd/. This can be considered a rule in the formation of the status constructus, but the plural forms can change also to /k/, /t/ or /c/. The plurals in /k/ and /t/ can be found in only two words in Luo, respectively /diek/ ‘goats’, and /líétê/ ‘ant-hills or graves’. These two words are found in almost all the analysed languages and they always represent exceptions to the common rules. On the other hand, the change from /l/ to /c/ occurs in Luo more often, as these examples of formation of the status constructus singular can show: *agulu* ‘pot’ --> *aguc-*; *abila* ‘hut’ --> *abic-*; *ndalo* ‘garden’ --> *ndac-*; *agola* ‘verandah’ --> *agoc-*; *obwolo* ‘mushroom’ --> *obwoc-* (Huntingford 1959:26). These forms represent an alternative to the change to /nd/. In some cases, also the plural form with the suffix /-ni/ can be found as a further option (e.g. /agulni/ ‘pots’). The following examples¹⁵ will show the behaviour of /l/ in Luo, Shilluk, Anywa, Pări and Acholi:

Luo

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/diɛl/	<i>goat</i>	/diek/	/diɛnd-/	/diek-/ , /diɛndɛ/
/liɛl/	<i>grave, ant-hill</i>	/líétê/	/líénd-/	/liete/ , /liɛndɛ/
/bul/	<i>drum</i>	/bunde/	/bund-/	/bunde/
/agúlú/	<i>pot</i>	/agúcê/ , /agúndê/	/aguc-/ , /agund-/	/aguce/ , /agunde/
/tiɛlo/	<i>leg</i>	/tíéndé/	/tiɛnd-/	/tíéndé/
/wéndô/	<i>visitor</i>	/welo/	/wendo/	/wend-/

Shilluk

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/dyɛl/	<i>goat</i>	/dyèG/	/dyɛɛḷ̥-/	/dyèGG̣̥’-/
/būl/	<i>drum</i>	/bùlli/	/būūḷ̥-/	/bùlḷ̥’-/
/tyél/	<i>elbow</i>	/tēèl/	/tyééḷ̥-/	/tēlḷ̥’-/
/álāl/	<i>gum tree</i>	/álàlli/	/álāāḷ̥-/	/álàlḷ̥’-/
/tyèèlò/	<i>foot</i>	/tyél/		

¹⁵ Examples from: Tucker (1994) and Huntingford (1959) for Luo, Westermann (1912) and Gilley (2000) for Shilluk, Reh (1996) for Anywa, Simeoni (1978), Storch (2005) and Andersen (1989) for Pări, Crazzarola (1955) for Acholi

Anywa

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/d̥iɛl/	<i>goat</i>	/d̥iɛG/		/d̥iɛGG̃-/
/liɛl/	<i>ant-hill</i>	/l̥eɛDD̥/		/l̥eɛDD̥̃-/
/b̥uul/	<i>drum</i>	/b̥ullí/, /b̥urí/		
/āgūlū/	<i>pot</i>	/āgūlí/	/āgūll̥̃-/	/āgūDD̥̃-/
/t̥iɛl̥/	<i>leg</i>	/t̥iɛl/	/t̥iɛr̥-/ , /t̥iɛll̥̃-/	
/w̥eɛlló/	<i>guest</i>	/w̥eɛllé/	/w̥eɛll̥̃-/	/w̥eɛDD̥̃-/

Päri

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/d̥iɛl/	<i>goat</i>	/d̥iɛk/	<i>dyend-</i>	<i>dyekk-</i>
/liɛl/	<i>ant-hill</i>	/l̥eɛt/		
<i>bul</i>	<i>drum</i>	<i>bundi</i>	<i>bund-</i>	<i>but-</i>
<i>agulu</i>	<i>pot</i>	<i>aguli</i>		
<i>tyelo</i>	<i>leg</i>	<i>tyel</i>		
/t̥wól/	<i>snake</i>	/t̥wón̥d̥/		

Acholi

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/d̥yɛl/	<i>goat</i>	/d̥yɛg̃/

Apart from Luo, forms where /l/ is changing to the nasal compound /nd/ can be found only in Päri. In this language in one case /l/ changes to the dental nasal compound /ṇd̥/. However, the limited amount of data doesn't allow to make further considerations. In Shilluk it seems that /l/ is not affected by any sound change, apart from gemination in the plural and in the status constructus plural. In Anywa, in the formation of the status constructus singular /l/ changes to /r/ or remains unchanged. According to Reh (1996:122) a rule to predict its behaviour has not yet been found. In the status constructus plural /l/ changes to an alveolar plosive and is subject to gemination, in some more rare cases to a dental plosive (e.g. /t̥úollé/ 'snakes' --> /t̥úoDD̥̃-/ (sc.pl) (Reh 1996:125); cf. Päri /t̥wól/ 'snake' (sg.) --> /t̥wón̥d̥/ (pl.) (Storch 2005:254)).

In Luo the noun /wéndô/ ‘visitor’ has a nasal compound as root-final consonant. This changes to /l/ in the plural: /welo/ ‘visitors’. It is an exception to the rule, because in Luo the change occurs unidirectionally from /l/ in the singular to /nd/ in the modified forms. No other noun with such a behaviour is known. The same noun in Anywa, /wèelló/, appears with a regular form. The other forms are /wèellé/ (pl.), /wèell.-/ (sc.sg) and /wèeDD.-/ (sc.pl).

The other liquid present in Western Nilotic languages, the alveolar trill /r/, shows also a particular behaviour. In Luo it changes mostly to a palatal plosive, but it can also change to the alveolar nasal compound /nd/. The change from /r/ to a palatal plosive happens in Anywa for the status constructus plural only, and for a single word in Pāri. In the status constructus singular there is no change if the /r/ in root-final position is not followed by any vowel, whereas it changes to a palatal nasal or to the palatal semivowel, in both cases geminated, respectively /ɲɲ/ and /yy/, if followed by a vowel (Reh 1996:117ff). A change from /r/ to the palatal semivowel /y/ occurs in few cases also in Luo, e.g. in /kwer/ ‘hoe’ /r/ changes to /y/ in the plural and in the both forms of the status constructus. The same word in Acholi behaves accordingly. From the available examples, it seems that in Shilluk no change of /r/ takes place. See the following examples ¹⁶:

Luo

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/kwer/	<i>hoe</i>	/kwɛ/, /kue/, /kueye/	/kwey-/	/kweye/
/wer/	<i>song</i>	/wende/	/wend-/	/wende/
/bur/	<i>hole</i>	/buce/	/buc-/	/buce/
/bor/	<i>boil</i>	/buce/	/bóc-, /bór-/	/buce/
/aora/	<i>river</i>	/aore/	/aoc-/	/aoce/
/at̪erɔ/	<i>arrow</i>	/at̪ɛɛ/, /at̪ere/, /at̪erni/	/at̪ɛc-/	/at̪ɛɛ/

¹⁶ Examples from: Tucker (1994) and Huntingford (1959) for Luo, Westermann (1912) and Gilley (2000) for Shilluk, Reh (1996) for Anywa, Simeoni (1978), Storch (2005) and Andersen (1989) for Pāri, Crazzarola (1955) for Acholi

Shilluk

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/gūr/	<i>Nile Perch</i>	/gúur/	/gūūr.-/	/gúrr.-/
/kwōr/	<i>unpaid debt</i>	/kōōr/	/kwōōr.-/	/kōrr.-/
/pyēr/	<i>lower back</i>	/pèrri/	/pyēēr.-/	/pèrr.-/
/kwērɔ/	<i>hoe</i>	/kwéèrì/		

Anywa

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/bùur/	<i>hole</i>	/búrí/	/bùur.-/	/búJJ.-/
/cwìir/	<i>rainy season, year</i>	/cwìirí/	/cwìir.-/	/cwìiJJ.-/
/wàrò/	<i>shoe</i>	/wàr/	/wàṛṇ.-/, /wàyy.-/	/wàJJ.-/
/āṭṭèrò/	<i>arrow</i>	/āṭṭèrè/		

Päri

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/bùur/	<i>hole</i>	/bùr'ì/		
/cwìir/	<i>rainy season</i>	/cwìrê/		
/mur/	<i>vagina</i>	/muccî/		
<i>waro</i>	<i>sandal</i>	<i>war</i>		
<i>aṭero</i>	<i>arrow</i>		<i>aṭec-</i>	
<i>yerro</i>	<i>hair</i>	<i>yer</i>	<i>yec-</i>	

Acholi

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/àṭèrò/	<i>arrow</i>	/àṭègî/
/kwèèr/	<i>hoe</i>	/kwèi/

4.2.3 Sound changes of semivowels

Semivowels appear rarely in root-final position and their behaviour varies in the analysed languages. In Luo the labial-velar semivowel /w/ changes with the labial plosive /p/, but in some cases it can form the plurals with the suffix /ni-/ maintaining its original form. The sound change between /w/ and /p/ can occur in both directions (e.g. /lep/ ‘tongue’, /lewe/ (pl.), /lew-/ (sc.sg) (Huntingford 1959:33; Tucker 1994:612)) and it is found only in Luo, as the following examples can show ¹⁷:

Luo

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/lăw/	<i>cloth</i>	/lépê/, /lewni/	/lap-/ , /law-/	/lepe/
/ŋé^w/	<i>peg</i>	/ŋepe/, /ŋewni/	/ŋep-/	/ŋepe/
/gowi/	<i>debt</i>	/gope/	/gop-/	/gope/
/ɔlăwô/	<i>saliva</i>		/ɔlap-/	
/rawɔ/	<i>hippo</i>	/réwê/, /répê/	/rap-/	/rewe/, /repe/

Shilluk

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/cyéw/	<i>porcupine</i>	/cyèwwi/		
/áɽíwì/	<i>jug</i>	/áɽīwwi/	/áɽíw̄-/	
/lāwì/	<i>paddle</i>	/lāwwi/	/lāw̄-/	
/lāwó/	<i>cloth</i>	/lānni/	/lāw̄-/ , /lān̄-/	/lānn̄.-/
/ków/	<i>chest</i>	/kóòɽ/		
/fyów/	<i>heart</i>	/fyèɽ/	/fyów-/	

¹⁷ Examples from: Tucker (1994) and Huntingford (1959) for Luo, Westermann (1912), Kohnen (1933), Gilley (2000) and Storch (2005) for Shilluk, Reh (1996 and 1999) for Anywa, Simeoni (1978), Storch (2005) and Andersen (1989) for Pãri, Blackings (2009) for Acholi

Päri

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/ràw/	<i>hippo</i>	/ɾɿwê/		
/t̪èèwí/	<i>porcupine</i>	/t̪ééwè/		
/kɿw/	<i>chest</i>	/kòòt̪í/		
/ɲùù/	<i>lion</i>	/ɲùwwè/		

Anywa

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/t̪ò/	<i>death</i>	/t̪úuɲɲí/	/t̪òww̃-/	
/dikii/	<i>oarsman</i>	/dikiiwè/	/dikiiww̃-/	
/dibɔ̃w/	<i>white cow</i>	/dibówí/	/dibɔ̃w̃-/	
/káw/	<i>girdle, belt</i>	/kàaè/	/kàã-/	
/ūt̪óo/	<i>fox</i>	/ūt̪ów/		/ōt̪ōww̃-/
/ɲùu/	<i>lion</i>	/ɲùuwwè/		/ɲùuww̃-/

Acholi

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/láá/	<i>saliva</i>	
/ràà/	<i>hippo</i>	

It is very difficult to understand the behaviour of /w/ in the other languages from the examples above, for there does not seem to be any homogeneity in the sound changes. In Shilluk (and similarly in Päri) /w/ doesn't change, it may change to the alveolar nasal /n/ in one case, or also to the plosive dental /t̪/ in two cases. The Shilluk word /ków/ 'chest', /kòòt̪/ (pl.) (Storch 2005:266) seems to be related to the Luo /kór/ and the Acholi /koór/ 'chest, breast'. However, the Shilluk and Päri plural forms with /t̪/ don't match with any regular plural forms in any of these languages. Also for Anywa the behaviour of /w/ is not clear. According to Reh (1996:118ff) /t̪ò/ and /dikii/ are suffixed forms of the roots /t̪òw/ and /kiwi/, and they form the status constructus by gemination of the semivowel /w/. The other examples, on the other hand, have no segmental suffixes and they drop /w/ in the status constructus (ibid. 121). In the Acholi examples it can be noticed that the semivowel /w/ was probably not stable in root-final position and in some cases it has been dropped (cf. Acholi

The following examples ¹⁸ will show the behaviour of the other semivowel, the palatal /y/, in the languages under analysis:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/apwɔɣɔ/	<i>hare</i>	/apwɔce/	/apwɔc-/	/apwɔce/
/cwǎ/	<i>tamarind</i>	/cwace/	/cwǎ/	
bwě/	<i>jackal</i>	/bwéyê/, /bwεce/	/bwεc-/ , /bwéy-/ , /bwε-/	/bwεye/, /bwεce/
/due/	<i>moon, month</i>	/dúyéê/, /duece/	/dúyé-/ , /dúé-/	/dueye/, /duece/
/lɛ/	<i>axe</i>	/léđî/, /léyé/	/léy-/	/ledî/, /leye/

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/lūy/	<i>sieve</i>	/lùy/	/lūūy,-/	/lùyy'./
/dway/	<i>moon</i>	/dwat/		
/cwày/	<i>soup</i>	/cwàyì/		
/beyɔ/	<i>mosquito</i>	/bé`y/		

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/bòóy/	<i>fishing net</i>	/bóóyyí/	/bōō.-/, /bōōn.-/	/bōōJ̄.-/
/tùóy/	<i>fishing basket</i>	/túoi/	/tūō.-/	/tūōJ̄.-/
/lèy/	<i>axe</i>	/lii/	/lii.-/	/liiGG.-/
/làAy/	<i>animal</i>	/làlí/	/lāā.-/, /lāān.-/	/lāāJ̄.-/
/dwàY/	<i>moon, month</i>	/dwàDè/	/dwān.-/	

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Päri

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
/dwɿɿy/	<i>month</i>	/dwɿdi/, /dwèdi/	<i>dwaŋ-</i>	<i>dwäti</i>

Acholi

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/ròyà/	<i>heifer</i>	<i>ròcî</i>
/dweè/	<i>moon</i>	

The typical Western Nilotic noun-stem is always CVC (the first-root consonant may be palatised or labialised, therefore C_(j/w)VC should be more correct (Gilley 2000:4)), and in some cases may be preceded by a prefix, or extended with a suffix. However, in Luo there are some short nouns with a CV form, suggesting that probably the root-final consonant might have dropped diachronically. Such a process have been already noticed for verbal nouns derivated from verbs with the semivowel /y/ in root-final position. This can be confirmed by the presence of /y/ in the modified forms of such nouns (cf. /bwě/, /due/, /ɛ/ in the examples above). Cognates in the related languages present further confirmation of this hypothesis (cf. Luo /due/ ‘moon, month’ with Shilluk *dway*, Anywa /dwɿy/, Päri /dwɿɿy/, Acholi /dweè/; and Luo /ɛ/ ‘axe’ with Anywa /lèy/).

In Luo the semivowel /y/ doesn’t change, or it changes to the palatal plosive /c/ (often both the options are possible). The change from /y/ to a palatal plosive can be otherwise noticed only in Anywa in the status constructus plural, but never in other forms, and in a single example from Acholi (*ròyà* ‘heifer’ --> *ròcî* (Crazzarola 1955:41)). In Anywa in the formation of the status constructus singular the semivowel /y/ changes to the alveolar nasal /n/ or is dropped. In Shilluk, Päri and Anywa in the plural forms for the word for ‘moon, month’, /y/ changes to a palatal plosive. This change is clearly irregular, for it cannot be found in any other noun, but the presence of a palatal plosive as root-final consonant in the plural forms in the majority of the languages could suggest, that a palatal plosive was present in an ancient version of this term. A further irregular form is one of the possible Luo plurals for /ɛ/ ‘axe’, /lédî/, where the root-final consonant is a dental plosive.

4.2.4 Comparison of patterns of formation of modified forms

As already mentioned in 4.2 Gilley (2000) and Reh (1996) drew some patterns of formation of the plural for Shilluk and Anywa respectively. In the table below the patterns for Shilluk were summarised:

	<u>Singular</u>	<u>Plural</u>	<u>St. Constr. Sg.</u>	<u>St. Constr. Pl.</u>
Singular 1	CVC	CVVC	CVVC:-	CVCC':-
	Vowel lengthening in the plural form [-ATR] in sg. may change to [+ATR] in plural			
Singular 2	CVC	CVCCi	CVVC:-	CVCC':-
	Suffix -Ci in the plural form [-ATR] in sg. mostly changes to [+ATR] in plural			
Singular 3	CVC	CVC	CVVC:-	CVCC':-
	Change of tone, no suffixes			
Singulative 1	CVCɔ	CVVC	CVC:- / CVC ⁿ :-	CVCC':-
	Vowel lengthening in the plural form No change in ATR quality. Eventually nasalisation of C ₂ in the sc.sg			
Singulative 2	CVCɔ	CVCCi	CVC:- / CVC ⁿ :-	
	Suffix -Ci in the plural form Nasalisation of C ₂ in the sc.sg for verbal nouns			
Singulative 3	CVCɔ	CVC	CVC:- / CVC ⁿ :-	CVCC':-
	The plural form is morphologically opaque (collective) Eventually nasalisation of C ₂ in the sc.sg			
Singulative 4	CVCɔ	CVC ⁿ C ⁿ i	CVC ⁿ :-	CVC ⁿ C ⁿ ':-
	Nasalisation in the plural form and in the status constructus [-ATR] in sg. mostly changes to [+ATR] in plural			
Singulative 5	CVCi	CVCCi	CVC ⁿ :-	
	Mostly names of instrumensts. Prefix -i instead of -ɔ in the singular. Nasalisation of plosives in the sc.sg			
Singulative 6	CVCɔ		CVC:- / CVC ⁿ :-	
	No plural form. Many names of plants			

The table doesn't count the suppletive categories, for these contain irregular nouns changing completely the stem in their plural form. These nouns will be analysed apart.

First of all it has to be noted that Acholi nouns have mostly only the forms of the status absolutus. The status constructus seems to have been diachronically lost, with exception for some kinship terms which will be analysed in a later paragraph and some few irregular nouns. According to Crazzarola (1955:43ff) the genitive in Acholi is formed by prepositions, distinguishing this language from all the other related ones, where a modification of the noun form occurs. In Acholi two prepositions are used for the formation of the genitive: *mé* on one side is used to indicate that something is intended to serve as an instrument of an action (genitive of destination), whereas *pà* is used to indicate real possession (e.g. *pyeèn mé bèdò* 'a skin to sit (for sitting)'; *òcèkè mé làmáat kòhò* 'a tube for trinking beer'; *nyàà pà rwoòt* 'daughter of the king' (ibid. 1995:46)). In the other analysed languages the nomen regens appears in its status constructus (e.g. Luo /dɛc ɲó'r/ 'granary for beans' (from /dɛrɔ/ 'granary'), /iɯ dɪɛl/ 'goat's tail' (from /ip/ 'tail') (Tucker 1994:193)).

Among the analysed languages Acholi has also the less complex system of formation of the plurals. With exception for some irregular words, most of the Acholi nouns form the plural with the suffix *-i* (e.g. *gweènɔ* 'fowl' --> *gweeni* (pl.); *rɔ́mɔ́* 'sheep' --> *roòmì* (pl.) (Crazzarola 1955:41)). However, the sound changes involving voicing of voiceless plosives, ATR quality and tone, common to all Western Nilotic languages, occur as well in the formation of the Acholi plural forms.

In the previous paragraphs it was already observed that the changes occurring to root-final consonants in the formation of the status constructus may involve gemination (in Shilluk, Anywa and Pāri), nasalisation (in Shilluk, Anywa and Pāri as a change from a plosive to a nasal or a nasal geminate), or a change to a nasal compound (in Luo and Pāri).

The behaviour of the nouns in the formation of the plural and of the status constructus is quite different in the analysed languages. However, basing on the patterns for Shilluk described by Gilley (2000) it was possible to divide Shilluk nouns into categories and to compare examples of each category with corresponding nouns in the other languages. This may give an evidence of how nouns from the same origin developed different ways of morphological modification in various related languages. For the formation of the status

constructus has significant differences in every analysed language, the focus will be pointed mostly on the plural forms.

The category “Singulative 3” in Gilley’s patterns is the only one having an unmarked form of the grammatically plural nouns (opaque). The grammatically singular forms are obtained with the suffix /-ɔ/. The following examples ¹⁹ are showing the behaviour of Shilluk nouns in this category and how the corresponding nouns behave in other languages:

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/rēJɔ̃/	<i>fish</i>	/'rīJ/	/rēJ̄-/	/'rīJJ̄'-/
LU	/réc/	<i>fish</i>	/réyê/, /rece/		
AN	/rèeō/	<i>fish</i>	/rēJ/		/rēJJ̄'-/
PÄ	<i>reo</i>	<i>fish</i>	<i>ric</i>		
AC	/rēc/	<i>fish</i>	/reci/		
SH	/pwōD̄ɔ̃/	<i>field</i>	/'pwōD̄/	/pwōD̄̄-/	/'pwōD̄D̄̄'-/
LU	/puoḡó/	<i>field</i>			
AN	/pùoD̄ō/	<i>field</i>	/pūoD̄/		
PÄ	<i>puoḡo</i>	<i>field, farm</i>	<i>puoḡ</i>		
AC	/pòto/, /pòtó/ ²⁰	<i>field, farm</i>			
SH	/lēJɔ̃/, /lééJ̄ɔ̃/ ²¹	<i>tooth</i>	/'lēG/, /lékk/ ²¹	/lēJ̄̄-/	/'lēGḠ̄'-/
LU	/lak/	<i>tooth</i>	/lékê/		
AN	/lèeō/	<i>tooth</i>	/làG/		/làGḠ̄̄-/
PÄ	<i>leo</i>	<i>tooth</i>	<i>lak</i>		
AC	/laàk/	<i>tooth</i>			

¹⁹ Examples from: Tucker (1994) and Huntingford (1959) for Luo, Gilley (2000), Westermann (1912) and Storch (2005) for Shilluk, Reh (1996 and 1999) for Anywa, Simeoni (1978) (in italic) and Andersen (1989) for Pări, Crazzarola (1955) and Blacking (2009) for Acholi

²⁰ First example from Crazzarola (1955), second from Blackings (2009)

²¹ First example from Gilley (2000), second from Storch (2005:267)

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/átũDõ/	<i>duck</i>	/átũD/	/átũn.7-/	/átũDD.7-/
LU	/atú`do/	<i>pygmy goose</i>			
AN	/ātúdó/	<i>spur-winged goose</i>	/ātũt/		
PÄ	<i>atudo</i>	<i>duck</i>	<i>atutti</i>		
AC	/ātuudũ/	<i>wild goose</i>			
SH	/gyèènnò/	<i>hen, fowl</i>	/gyé`n/		
LU	/gwennò/	<i>fowl</i>	/gúén/		
AN	/gwènnò/	<i>chicken</i>	/gwèn/	/gwènn.7-/	
PÄ	/gwiènnò/	<i>hen</i>	<i>gwien</i>		
AC	/gwèènnò/	<i>hen, fowl</i>	/gweeni/		

Considering the examples in Shilluk, there is one pair which needs particular attention. The Shilluk word for ‘tooth’ was reported by Gilley (2000:15) with the forms /lẽʃò/ (sg) and /lẽG/ (pl). The change from [+ATR] in a grammatically singular form to [-ATR] in the plural is quite unique, for usually the changes are from [-ATR] to [+ATR]. Considering that the grammatically plural form is unmarked, while the singular one is suffixed, this could be considered as an exception in this particular case, as also stated by Gilley (2000:14). However, the transcriptions of this word by other scholars disagree with Gilley’s statement. Storch (2005:267) reports these nouns as /lééʒò/ (sg.) and /lékk/ (pl.), Westermann (1912:305) as /lééʒò/ (sg.) and /lék/ (pl.). The transcriptions by Storch and Westermann are identical for the singular and they are both [-ATR]. It is unclear if this difference should be attributed to a mistake, speakers of different areas, or other reasons, but the latter two transcriptions would not represent an exception in the direction of spread of [+ATR]. There are also some other differences in the various forms including the tone of the first vowels, always mid in Gilley and high in Storch and Westermann, and the gemination of the root-final consonant in the plural by Storch. On the other hand, the same change from [+ATR] in a marked grammatically singular form to [-ATR] in an opaque plural form can be found in Anywa: /lèeõ/ (sg) [+ATR] changes to /làG/ (pl) [-ATR]. This phenomenon can be observed in several Anywa nouns behaving in the same way as the nouns of the category “Singulative 3” by Gilley, e.g. /pòolõ/ (sg.) ‘cloud’ --> /pòol/ (pl.); /cèerõ/ (sg.) ‘star’ --> /cèer/ (pl.); /hòomõ/ (sg.) ‘bit of soil’ --> /hòom/ (pl.) (Reh 1996:99). Also according to Reh (1996:109) only one

Anywa noun in this category is changing ATR quality in the opposite direction: /gwènò/ (sg.) ‘chicken’ --> /gwèn/ (pl.). Furthermore, this word has the same behaviour in all the languages with an exception in Acholi, where the plural has the regular suffix *-i*.

The Luo word /gwənɔ/ (sg.) dropping the suffix in its plural form /gúén/ seems to be an exception and has to be treated as an irregular form, for no category as the Shilluk “Singulative 3” exists here. The only known word with a similar behaviour in Luo is /wéndô/ (sg.) - /welo/ (pl.), which means ‘visitor, guest, stranger, foreigner, alien, outsider’ (Odaga 2005:356). This noun was already mentioned in a previous paragraph because exceptionally the nasal compound /nd/ in the singular changes to /l/ in the plural form. Its Shilluk correspondent noun could be identified with /wêlò/ (sg.) - /wêl/ (pl.) ‘traveller’ (Westermann 1912:285) (Kohnen (1933:250,305) mentions *welo* (sg.) – *wel* (pl.) for ‘guest, traveller’), which is a verbal noun derived from /wɛɛlɔ/ ‘to travel’ (the Luo word for ‘to travel’ is *wuotho*, which doesn’t seem to be directly related to the noun /wéndô/). The Shilluk form of this noun matches exactly with the characteristics of the nouns in the “Singulative 3” category. Therefore the Luo form can be assumed as a direct derivation of the one found in Shilluk, explaining the exceptional change from /nd/ in the singular to /l/ in the plural .

A further interesting observation has to be done about the Luo nouns /réç/ ‘fish’ and /lak/ ‘tooth’ from the previous examples. In both the cases the Luo singular forms correspond to the plural forms (or collective according to Gilley) in Shilluk, Anywa and Pãri, which have the unmarked structure CVC. In some cases they are even identical. The “new” plural form in Luo is formed with the suffix */-ɛ/*, accompanied by the usual sound changes involving the root-final consonant, ATR quality and tone. An analogue process can be seen in the example from Acholi, where the “new” plural is formed with the regular plural suffix *-i*. Therefore it can be assumed that the process seen for the Shilluk nouns belonging to the “Singulative 3” category, having an opaque form in the plural and a marked one in the singular with the suffix */-ɔ/*, is not anymore productive in Luo.

The following examples ²² include nouns from the Shilluk singulative categories 1, 2, 4, 5 and 6, and their corresponding nouns in the other languages:

²² Examples from: Tucker (1994), Huntingford (1959) and Odaga (2005) for Luo, Gilley (2000) for Shilluk, Reh (1996 and 1999) for Anywa, Simeoni (1978) and Storch (2005) for Pãri, Craazarola (1955) and Blacking (2009) for Acholi

Singulative 1

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/lwēdò/	<i>finger</i>	/lwéèd/	/lwēd.̄-/	/lwēdd.́-/
LU	/lwédô/	<i>hand</i>	/luete/		
AN	/lwéédó/	<i>finger</i>	/lwèédí/	/lwéenn.̀-/	
PÄ	/lwéédò/	<i>finger</i>	/lwèèdî/		
AC	/lwéét/	<i>finger</i>			
SH	/kōḡò/	<i>thorn</i>	/kóòd/	/kōḡ.̄-/	/kóḡḡ.́-/
LU	/kúḡô/	<i>thorn</i>			
AN	/kóuḡó/	<i>thorn</i>	/kòuḡí/		
PÄ	<i>kuḡo</i>	<i>thorn</i>	<i>kuḡi</i>		
SH	/yēJò/	<i>rat</i>	/yéèJ/	/yēḡ.̄-/	/yéJḡ.́-/
LU	<i>oyieyo</i>	<i>rat</i>			
AN	/yíiό/	<i>rat</i>	/yìéy/	/yīenḡ.̀-/	
PÄ	<i>yio</i>	<i>rat</i>	<i>yieyi</i>		
AC	/òyóò/	<i>rat, mouse</i>			

Singulative 2

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/tīBò/	<i>shadow</i>	/tīBBì/	/tīB.̄-/	
LU	/tipó/	<i>shadow</i>	/tipê/		
AN	/tipò/	<i>shadow</i>	/tiip/		
PÄ	<i>tipo</i>	<i>shadow</i>	<i>tiip</i>		
AC	/tipfu/, /tipú/, /tipó/	<i>shadow</i>			
SH	/ápṵḡḡ/	<i>hare</i>	/ápṵḡḡi/	/ápṵḡ.̄-/	
LU	/apṵḡ`yó/	<i>hare</i>	/apṵḡce/	/apṵḡc-/	/apṵḡce/
AN	/āpúḡó/	<i>hare</i>	/āpúḡc/		
AC	/āpṵḡyḡ/	<i>rabbit</i>			

Singulative 4

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/lāwó/	<i>cloth</i>	/lānni/	/lāw̄-/ , /lān̄-/	/lānn̄'-/
LU	/lǎw/	<i>cloth</i>	/lépê/ , /lewni/	/lap-/ , /law-/	/lepe/
SH	/āṭābó/	<i>tobacco</i>	/āṭāmmi/	/āṭāmā/	
AN	/āṭābá/	<i>tobacco</i>	/āṭābé/		
AC	/táá/ , /tuba/	<i>tobacco</i>			

Singulative 5

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/rāṇi/	<i>mirror</i>	/rāṇi/	/rāṇ̄-/	
LU	/raṇi/	<i>mirror</i>	/raṇícê/		
AN	/rāṇi/	<i>mirror</i>	/rāṇyé/		/rāGḠ-/

Singulative 6

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/kèJò/	<i>bitterness</i>		/kèJ̄-/	
LU	/ké^c/	<i>bitterness</i>			
AN	/kéec/	<i>bitterness</i>			
PÄ	<i>kec</i>	<i>bitter</i>			
AC	/kéèc/	<i>bitter</i>			

The nouns in the Shilluk singulative categories 1, 2, 4, 5 and 6 have marked forms both in the singular and in the plural (the nouns of “singulative 6” have no plural). The plurals are formed for each language following the own rules respectively. Some considerations can be done.

Some nouns having a marked singular form in Shilluk appear in other languages with an unmarked form (e.g. /kèJò/ in Shilluk --> /ké^c/ in Luo, /kec/ in Pāri, /kéèc/ in Acholi; /lāwó/ in Shilluk --> /lǎw/ in Luo).

The corresponding Luo and Acholi nouns for the Shilluk /yēŋɔ̃/ ‘rat’ are <oyieyo> and /òyóò/ respectively, having the prefix *o-* in front of the noun root. In Anywa and in Pāri the noun is not prefixed. Similarly the noun /ápɰwɔ̃ŋɔ̃/ ‘hare’ is prefixed in all the languages. In Luo several names for animals and plants have a prefix which can be /a-/ or /ɔ-/. In some cases the same noun without the prefix may have a different meaning. However, the morphological function of these prefixes is unknown. See the following examples (Tucker 1994:138):

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/ɔŋgɔ̃/	<i>eagle</i>	/ɔŋgóyê/
/oyuo/	<i>caterpillar</i>	/oyúóyê/
--» cf. Shilluk /oywái/ (sg.), /oywái/ (pl.) (Westermann 1912:293)		
/ɔgwé/	<i>lizard</i>	/ɔgwéyê/, /ɔgwécê/
--» cf. Shilluk /ŋwèc/ ‘large lizard’, /ŋwèc/ (pl.) (Westermann 1912:299)		
/ondiek/	<i>hyena</i>	/ondiegî/
--» cf. /diek/ (pl.) ‘goats’		
--» cf. Anywa /ōdieG/ ‘hyena’ --» cf. /dieG/ (pl.) ‘goats’ (Reh 1996:91)		
--» cf. Pāri /údièk/ ‘hyena’ --» cf. /diek/ (pl.) ‘goats’ (Storch 2005:255f)		
/arómbô/	<i>red caterpillar</i>	--» cf. /rómbô/ ‘sheep’

In the previous examples of Shilluk singulative categories 1, 2, 4, 5 and 6 the Luo noun for ‘mirror’ is /raŋî/ (sg) - /raŋícê/ (pl). The plural form with a CVCVCV structure suggests that also this noun is prefixed and that the singular form lost a hypothetical root-final semivowel /y/, which is often elided in Luo. The prefix /ra-/ may have an instrumental function as seen in 3.2.2.3. The root /-ŋɪ(y)-/ is probably derived from the verb /ŋɪɰɔ̃/ ‘look at, stare at, look for’ (Odaga 2005:233). This may confirm the hypothesis that this noun is formed with the instrumental prefix /ra-/, meaning ‘instrument for looking at, for staring at’. In Shilluk, where the prefix /ra-/ is absent, the noun behaves as non prefixed, forming the plural by gemination of the root-final vowel (in this case /ɪ/): /rāŋɪ/ (sg.) --» /rāŋɪɪ/ (pl.). In this language the verb ‘to look’ is *raŋ* (Kohnen 1933:261) (cf. /raaŋɔ̃/ ‘to see by witchcraft’ (Westermann 1912:278)).

The Anywa singular form for ‘hare’ is /āpóɔ́ɔ́/, which differs from the other languages because it doesn’t have a root-final consonant (/y/ in Luo and Acholi, and a palatal plosive in

Shilluk). However, similarly to the other languages, the Anywa plural form has a palatal plosive in root-final position. It can be then supposed, that the Anywa singular dropped a hypothetical root-final /y/, as often happens in Luo. On the other hand, a sound change from /y/ to /c/ is not usual in Anywa, and this can suggest that this form could rather be a remnant of an old pattern of sound change in the formation of the plural.

The last examples ²³ in this paragraph include the nouns of the Shilluk singular categories 1, 2 and 3. These nouns are all unmarked in their singular form. In the category ‘Singular 1’ they form the plural by vowel lengthening, in ‘Singular 2’ by gemination of the root-final consonant, whereas in ‘Singular 3’ by change of tone (and eventually ATR quality).

Singular 1

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/lɛB/	<i>tongue</i>	/lɛ̀ɛB/	/lɛ̀ɛḄː-/	/lɛ̀BḄːˈ-/
LU	/lɛp/	<i>tongue</i>	/lewɛ/		
AN	/lɛɛB/	<i>tongue</i>	/lɛɛBBí/		
PÄ	/lɛ́ɛp/	<i>tongue</i>	/lɛ̀ɛpi/		
AC	/lɛb/	<i>tongue</i>			
SH	/lyɛ̃ʃ/, /lyɛ̀c/ ²⁴	<i>elephant</i>	/lyɛ̀ɛ̃ʃ/, /liɛ̀c/ ²⁴	/lyɛ̀ɛ̃ʃ̣ː-/	/lyɛ̀ʃ̣ːˈ-/
LU	/liɛc/	<i>elephant</i>	/liɛ́c/		
AN	/liɛ̃ʃ/	<i>elephant</i>	/liɛ́í/		
PÄ	/liɛ̀c/	<i>elephant</i>	/liɛ́c/		
AC	/lyɛ̀ɛc/	<i>elephant</i>	/lyeci/		
SH	/gwōG/	<i>dog</i>	/gwóòG/	/gwōōG̣ː-/	/gwóGG̣ːˈ-/
LU	/guok/	<i>dog</i>	/gúógî/		
AN	/gùoG/	<i>dog</i>	/gùú/		/gūuGG̣ːˈ-/
PÄ	/guòk/	<i>dog</i>	/gúù/		
AC	/gwóòk/	<i>dog</i>	/gwógî/		

²³ Examples from: Tucker (1994) and Huntingford (1959) for Luo, Gilley (2000), Westermann (1912) and Storch (2005) for Shilluk, Reh (1996) for Anywa, Simeoni (in *italic*) (1978) Storch (2005) and Andersen (1989) for Pāri, Craazarola (1955) and Blacking (2009) for Acholi

²⁴ First example from Gilley (2000), second from Westermann (1912:268)

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/wĩʃ/, /wíc/ ²⁵	<i>head</i>	/wāl̩D̩/, /waʃ/ ²⁵	/wɪʃ̣-/	/wāl̩D̩D̩́.-/
LU	/wíc/	<i>head</i>	/wìyè/		
AN	/wĩʃ/	<i>head</i>	/wídí/		
PÄ	/wíc/	<i>head</i>	/wídí/		
AC	/wiic/	<i>head</i>		/wiì-/	

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/yōó/, /yòòr/ ²⁶	<i>road</i>	/yēèD̩/, /yεèD̩/ ²⁶	/yōóẉ.-/	/yēD̩D̩́.-/
LU	/yo/	<i>road</i>	/yore/		
AN	/yōò/	<i>path, road</i>	/yíeD̩í/, /yíeD̩D̩́é/		
PÄ	<i>yoo</i>	<i>path</i>			
AC	/yoò/	<i>path, road</i>			

Singular 2

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/būl/	<i>drum</i>	/bùllì/	/būüḷ.-/	/bùlḷ́.-/
LU	/bul/	<i>drum</i>	/bunde/		
AN	/bùul/	<i>drum</i>	/bùllí/, /búrí/		
PÄ	/bùul/	<i>drum</i>	<i>bundi</i>		
AC	/buùl/	<i>drum</i>			

SH	/pyēr/	<i>lower back</i>	/pèrrì/	/pyēēṛ.-/	/pèrṛ́.-/
LU	/piēr/	<i>bottom</i>	/piérê/, /piérê/		
AN	/piēr/	<i>lower back</i>	/péeDDí/		
AC	/pyèèr/	<i>region of loins, waist</i>			

²⁵ First example from Gilley (2000), second from Westermann (1912:297)

²⁶ First example from Gilley (2000), second from Storch (2005:267)

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/kwēɪ/	<i>leopard</i>	/kwāɪɲɪ/		
LU	/kwac/	<i>leopard</i>	/kwéc/, /kwéyê/		
AN	/kwəlɪ/	<i>leopard</i>	/kwálɪɲɪé/		
PÄ	<i>kwac</i>	<i>leopard</i>	<i>kwajye</i>		
AC	/kwaàc/	<i>leopard</i>			

Singular 3

	<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>St. constr. sg.</u>	<u>St. constr. pl.</u>
SH	/ḍóG/	<i>mouth</i>	/ḍòG/	/ḍóóG̃-/	/ḍòGG̃'-/
LU	/ḍók/	<i>mouth</i>	/ḍoge/		
AN	/ḍók/	<i>mouth</i>	/ḍógi/		
PÄ	/ḍók/	<i>mouth</i>	/ḍógi/		
AC	/dóg/, /dóóg/ ²⁷	<i>mouth</i>			
SH	/tón/	<i>spear</i>	/tòn/	/tón̄-/	/tòn̄'-/
LU	/tón/	<i>spear</i>	/tón/, /tonge/		
AN	/tón/	<i>spear</i>	/tóon̄i/	/tón̄'-/	/tóoGG̃'-/
PÄ	<i>ton</i>	<i>spear</i>	<i>toni</i>		/tòong-/
AC	/tón/	<i>spear</i>	/tòn̄i/		
SH	/dyēl/	<i>goat</i>	/dyèG/	/dyēēl̄-/	/dyèGG̃'-/
LU	/diel/	<i>goat</i>	/diek/	/diend-/	/diek-/ , /diendε/
AN	/diel/	<i>goat</i>	/dieG/		/diēGG̃'-/
PÄ	/dièl/	<i>goat</i>	/dièk/		
AC	/dyèl/	<i>goat</i>	/dyég̃i/		

The Shilluk nouns in the ‘Singular 3’ category form the plural by change in tone and eventually in ATR quality. It can be observed that the same words in other languages which follow this pattern also have a low tone in the plural, although the word for ‘goat’ has always

²⁷ First example from Crazzarola (1955), second from Blackings (2009)

a low tone in the singular form, except for Shilluk, where it has a mid tone. Other Luo words following this pattern are /kóm/ ‘chair’, /kòm/ (pl) (also /kɔmbɛ/ is possible); /úm/ ‘cover’, /ùm/ (pl); /tón/ ‘boundary’, /tòn/ (pl) (also /tonge/ si possible) (Tucker 1994:125f).

The word for ‘elephant’ was included by Gilley (2000:5) in the ‘Singular 1’ category, where the nouns form the plural by vowel lengthening. However, the plural form quoted by Westermann (1912:268), /lièc/, doesn’t have a long vowel, similarly as in Luo, Anywa and Pări. Even if this last form may be considered the correct one, this word could not be included in the ‘Singulative 3’ category, for the tone is high-low in Shilluk and high in all other languages, not matching with the rule of this pattern.

A last consideration may be done for the plural forms of the word for ‘head’ in Shilluk, Anywa and Pări. Here the root-final palatal plosive is changing to a dental plosive in the plural form. This alternation is very exceptional, for in Shilluk and Anywa a palatal plosive usually changes to a palatal nasal.

4.2.5 Intimate and non-intimate genitive construction

In the previous chapters it was seen, that some nouns may have more than one different forms of the plural and of the status constructus (e.g. Luo /rawɔ/ ‘hippo’, /réwê/ or /répê/ (pl.); /agulu/ ‘pot’, /agúcê/, /agúndê/ or /agulnî/ (pl.)). According to Tucker (1994:198) these forms don’t have exactly the same meaning, but they differ on the basis of particular connotations: a general or non-intimate, and an emphatic or intimate one. He also differentiates two forms depending on the changes occurring to the stem: a ‘low tension form’, where the nomina regens and rectum are not affected, apart from the normal processes of vowel elision and tonal assimilation, and a ‘high tension form’, where the nomen regens may be subject to sound change of the root-final consonant and eventual elision. In this last case the tone patterns of both the nouns may be different than in isolation, and tone assimilation may not apply (ibid. 189f). See the following examples:

Low tension constructions:

/wéndó dâlâ/	<i>a visitor to the village</i>
/lé ɿim/	<i>a wild animal</i>

/wác kúô/	<i>a case of theft</i>
/kúó ɖok/	<i>cattle theft</i>

High tension constructions:

/ɔláp ɖiã/	<i>a cow's saliva</i>	--» /ɔlávó/, /ɖiã/
/léw guok/	<i>a dog's tongue</i>	--» /lép/, /guok/
/wend dálâ/	<i>visitors to the village</i>	--» /welo/, /dálâ/
/ɔgwánd aora/	<i>a river frog</i>	--» /ɔgwal/, /aora/

Usually high tension forms are intimate and low tension forms are non-intimate, but there can be exceptions. There also can be a contrast between two different high tension forms (Tucker 1994:198ff). For brevity the following abbreviations will be used: LT for low tension forms, HT1 for high tension forms with sound change of the root-final consonant, and HT2 for high tension forms without sound change of the root-final consonant. See the following examples:

Contrast between LT (non-intimate) and HT1 (intimate)

/cogo guok/	<i>the dog's bone (which it is eating)</i>	/cogó-nè/	<i>its bone</i>
/cók ɖiã/	<i>a cow bone</i>	/coke/	<i>its (own) bone</i>
/cín ná ɣ̃/	<i>the child's foreleg of meat</i>	/cín-né/	<i>his piece of meat</i>
/cínɣ ná ɣ̃/	<i>the child's hand or arm</i>	/cínɣé/	<i>his (own) hand</i>
/réc ráwera/	<i>the boy's fish</i>	/réc-né/	<i>his fish</i>
/ré áora/	<i>river fish</i>	/réyé/	<i>its fish</i>

Contrast between LT (non-intimate) and HT2 (intimate)

/cún rúot̚/	<i>the chief's piece of liver</i>	/cún-né/	<i>his piece of liver</i>
/cún ruot̚/	<i>the chief's mind</i>	/cúnê/	<i>his mind</i>
/kór ná t̚o/	<i>somebody's piece of (chest) meat</i>	/kór-né/	<i>his piece of meat</i>
/kór ɲat̚o/	<i>a person's chest</i>	/kórê/	<i>his (own) chest</i>

Contrast between HT1 (non-intimate) and HT2 (intimate)

/búc já ɰiɛɰ/	<i>the ulcer which the doctor is attending to</i>	/bucé/	<i>the ulcer which he is attending to</i>
/bór jaɰiɛɰ/	<i>the ulcer on the doctor's own body</i>	/bórê/	<i>his (own) ulcer</i>
/ɲoc rúoɰ/	<i>the chief's peas</i>	/ɲocé/	<i>his peas</i>
/ɲór ruoɰ/	<i>the chief's peas of a special kind</i>	/ɲórê/	<i>his peas</i>

Contrast between LT (intimate) and HT1 (non-intimate)

/ɲéw lá'w/	<i>garment peg</i>	/ɲéw-nè/	<i>its peg</i>
/ɲép má`má/	<i>mother's peg</i>	/népé/	<i>her peg</i>
/ɰín kɔɲɔ/	<i>beer strainer</i>	/ɰín-nè/	<i>its strainer</i>
/ɰínɲg má`rɔ/	<i>strainer of mother-in-law</i>	/ɰínɲgê/	<i>her strainer</i>

Contrast between LT (intimate) and HT2 (non-intimate)

/jatet riɲó/	<i>the meat's cook</i>	/jatet-né/	<i>its cook</i>
/jatet rúoɰ/	<i>the chief's cook</i>	/jateté/	<i>his cook</i>
/adúndó gwɛnɔ/	<i>a fowl's gizzard</i>	/adúndó-né/	<i>its gizzard</i>
/adúnd guók/	<i>the dog's heart (which it is eating)</i>	/adúndé/	<i>its heart</i>

Tonal contrast within same types

/dend ɰian/	<i>the body of a cow (HT1)</i>	/dende/	<i>its body</i>
/dénd ɰian/	<i>a piece of cow skin (HT1)</i>	/déndê/	<i>piece of its skin</i>
/ɔɲgó got/	<i>eagle of the hill (HT1)</i>	/ɔɲgóyê/	<i>its eagle</i>
/ɔɲgó ɰádwar/	<i>the hunter's eagle (HT1)</i>	/ɔɲgóyé/	<i>his eagle</i>

Irregular

/tɛl(ɔ) Omó`lo/	<i>Omolo's piece of leg meat (LT)</i>	/tɛlɔ-né/	<i>his piece of meat</i>
/tɛ(nd) Ómó`lo/	<i>Omolo's leg (HT2)</i>	/tɛndé/	<i>his (own) leg</i>
/tɛ(nd) mítɔkâ/	<i>a car wheel (HT2)</i>	/tɛndé/	<i>its wheel</i>
/tíéndé mítɔkâ/	<i>car wheels (LT)</i>	/tíéndé-nè/	<i>its wheels</i>

The last example shows a particular irregular pattern: in the first pair the HT2 form is intimate, whereas in the second pair both forms are intimate, although the singular is HT2 and the plural LT. Taking a look to all the examples it can be said, that even if generally there is a contrast between the two forms, it is not predictable which form should be used to express and intimate or a non-intimate connotation. The most probable cause of this can be seen in a partial loss of the original pattern, which is also indicated by the fact, that many nouns have only one possible form in Luo.

Reh (1996:134f) describes the same phenomenon for Anywa, although she defines the intimate connotation ‘inalienable’, whereas the non-intimate is the ‘alienable’ form. In this language the intimate forms lack of the typical phonological processes in the formation of the status constructus, namely nasalisation and plosivisation of the root-final consonant. Instead they involve only the rhotacisation of the consonants /l/, /n/ and /w/. See the following examples (ibid. 135):

<u>Noun</u>	<u>Form</u>	<u>Meaning</u>	<u>Intimate</u>	<u>Non-intimate</u>
/lwèɛDò/	sg	<i>finger</i>	/lwéɛD-/	/lwéenn̩.-/
/ɲèèDò/	sg	<i>rip</i>	/ɲèèD-/	/ɲèenn̩.-/
/tiɛlò/	sg	<i>leg</i>	/tiɛr-/	/tiɛll̩.-/
/cènò/	sg	<i>hand</i>	/cèr-/	/cènn̩.-/
/cēɲ/	pl	<i>hands</i>	/cēɲ-/	/cēGG̃.-/
/cwíɲɲí/	pl	<i>livers</i>	/cwíɲɲ-/	/cwíJJ̃.-/
/mālɒn/	pl	<i>women, wives</i>	/mālɒr-/	/mālɒn̩.-/
/ciin/	pl	<i>intestines</i>	/ciir-/	/ciin̩.-/

A comparison between Anywa and Luo cannot be done for nouns with final root consonant /l/, /w/ or plosive, for the sound changes occurring in the formation of derived forms are totally different. However, a comparison of terms ending with a nasal is possible. See the following examples from Luo (Tucker 1994:198f):

/cíɲ ná̩ ɲ̩/	<i>the child's foreleg of meat</i> (LT)	/cíɲ-né/	his piece of meat
/cíɲɲ ná̩ ɲ̩/	<i>the child's (own) hand or arm</i> (HT1)	/cíɲgé/	his (own) hand

/cínó ɲatɔ/	<i>entrails (of animal) belonging to someone (LT)</i>	/cínó-ně/	his entrails
/cínd ɲá tɔ/	<i>a person's own entrails (HT1)</i>	/cíndé/	his (own) entrails

For both the terms in Luo the intimate form is the one with high tension, where a change of the root-final consonant takes place (a nasal becomes its corresponding nasal compound). In Anywa on the other hand the typical process of nasalisation of plosives in the singular and plosivisation of nasals in the plural occurs for non-intimate forms (note also the uncommon behaviour of the non-intimate forms of /cènò/ and /cìn/, both ending in the alveolar nasal – as seen in 4.2.1 /n/ usually changes to /DD/ (the also typical opposite process can be seen in the examples above for /lwèɛDò/ and /ɲèɛDò/), but in this case only a gemination takes place). In conclusion it can be stated that if in Luo high tension forms are usually intimate, in Anywa the low tension ones have this connotation (note that in Luo there are exceptions to this rule as also has been seen in previous examples, whereas there are not enough data for Anywa which could witness an irregular behaviour in this language).

Tucker and Bryan (1966:439) provide some examples for Acholi:

<u>Example</u>	<u>Meaning</u>	<u>Form</u>
/wì dánô/	<i>a person's (own) head</i>	intimate
/wìc pà dánô/	<i>head (of animal) belonging to a person</i>	non-intimate
/bàd rwòt/	<i>chief's (own) hand</i>	intimate
/bàt pà rwòt/	<i>foreleg (of animal) belonging to chief</i>	non-intimate
/pyèn léê/	<i>skin of animal</i>	intimate
/pyèn pà dánô/	<i>skin belonging to a person</i>	non-intimate

As already seen in paragraph 4.2.4 in Acholi the nouns don't have a status constructus (few exceptions may occur) and the genitive of possession is formed by the preposition *pà* between the nomen regens and the nomen rectum, without any sound change in the stem of the noun. In the examples for intimate forms it can be observed that *pà* is never used and that the noun may be subject to sound change (/bàt/ 'hand' --> /bàd/ (the voiceless root-final consonant becomes voiced, similarly as in Luo); /wìc/ 'head' --> /wì/ (probably here the

sound change is from /c/ to the semivowel /y/, which can be subject to elision, as often happens in Luo)). The modified forms of the noun, which can be compared with the high tension ones for Luo, are used in Acholi to express an intimate connotation.

4.3 Agentive prefixes in Shilluk, Pāri, Anywa and Acholi

In the Western Nilotic branch agentive prefixes can differ in their form, but they seem to behave in the same way in all the analysed languages (Luo, Shilluk, Anywa, Pāri and Acholi). As it will be shown in the following examples, they mainly originate from words indicating ‘person’ or ‘human being’. There is no Luo word which can be directly associated to the prefix /ja-/. However, there are two words for person: <ng’ato> /ɲatɔ/ and <dhano> /ɖ́ano/. The plural for both these nouns is <ji> /ji/, which shows a similarity with the agentive prefixes /ja-/ and /jɔ-/. In 3.2.3 it was also observed, that /jɔ-/ is the status constructus of the plural form /ji/. The following table shows all the nouns for ‘person’ in the analysed languages:

<u>Language</u>	<u>Singular</u>	<u>Plural</u>	<u>Source / Notes</u>
Luo	/ɲatɔ/	/ji/	Tucker (1994:591)
	/ɖ́ano/	/ji/	Tucker (1994:591)
Shilluk	/ɲatè/	/tyéɲ/	Westermann (1912:274)
	<i>ɲati</i>	<i>ji</i>	Kohnen (1933:273)
	/ɖ́aaɲ/		Westermann (1912:254)
	<i>ɖ́ano</i>	<i>ji</i>	Kohnen (1933:273)
	/jəlò/, /jəl/	/jòk/	Westermann (1912:260)
Pāri	<i>ɖ́aɲo</i>	<i>lwak</i>	Simeoni (1978:23)
	<i>ɲatti</i>	<i>jɔ</i>	Simeoni (1978:41)
Anywa	/ɖ́aanó/	/jěy/	Reh (1996:259)
		/jów/	Reh (1996:216)
	/jəal/		<i>old man</i> – Reh (1996:122)

Acholi	/daánô/	/ɔ̀ò/, /jĩ/	Crazzarola (1955:211)
	/dánô/	/ɔ̀/, /jì/	Heusing (2004:331)
	/ɲàtĩ/	/ɲàdigi/	in compounds ɲaàt, indef. pr., someone, some (unknown) individual, a person - Crazzarola (1955:321)
	/jaàl/		indef. prn. fellow, individual (used particularly for calling one): /jaàli, biin káàny!/ ‘you there, come here!’ - Crazzarola (1955:237)

From the table above it is possible to recognise that in many languages the plural for ‘person’ is a form related to the Luo plural prefix /ɔ̀-/ (in all languages the vowel in these words is always open, i.e. /ɔ̀/ (for Pàri the author doesn’t make any distinction between open and close vowels)) or to the word /jì/. The singular terms are mainly all related either to the Luo word /ɲatɔ̀/ or to /ɖánɔ̀/.

However, in some of these languages there are some terms which can even be related to the Luo singular prefix /ja-/ , although sometimes the meaning is slightly different or has a particular connotation for the concept of ‘person’ or ‘human being’. The term which is nearer to the meaning in Luo is the Shilluk /jàlò/ or /jàl/ (sg.) - /ɔ̀k/ (pl.). In this case both the forms have a second consonant, which is /l/ for the singular and /k/ for the plural. The same combination of /j/ and /l/ can be found also in the Anywa word /jàal/ and in the Acholi one /jaàl/.

In Luo there are some terms with the meaning of ‘this man’, ‘that man’ etc., which are formed by a combination of the prefix /ja-/ with the demonstrative suffixes /nɪ/, /nɔ̀/, /ca/ for the singular, and /gɪ/, /gɔ̀/, /ka/ for the plural (Stafford 1967:33) (note also the *N/*K alternation between the singular and the plural forms of these suffixes). In the singular, however, the presence of /l/ between the prefix /ja-/ and the demonstrative suffixes can be observed, demonstrating the affinity of this prefix to the terms for ‘person’ with a similar form in the other languages reported in the previous table. The /n/ of the demonstrative suffixes /nɪ/ and /nɔ̀/ assimilates to the mentioned /l/. In the plural forms this /l/ is absent.

⟨jali⟩	/jaɭ/	this man	--»	/ja/ + /ɭ/ + /nɪ/
⟨jalo⟩	/jaɭo/	that man	--»	/ja/ + /ɭ/ + /no/
⟨jalcha⟩	/jaɭca/	yonder man	--»	/ja/ + /ɭ/ + /ca/
⟨jogi⟩	/joɣɪ/	these men	--»	/jo/ + /gɪ/
⟨jogo⟩	/joɣo/	those men	--»	/jo/ + /go/
⟨joka⟩	/joɭka/	yonder men	--»	/jo/ + /ka/

The following table shows the agentive prefixes in the analysed languages. Each of them will be analysed in details:

	<u>Luo</u>	<u>Shilluk</u>	<u>Päri</u>	<u>Anywa</u>	<u>Acholi</u>
<u>Singular</u>	/ja-/	/ɲate/, /ɲaan/, /jaɭ/	ɲi-, li-, ɲatti	/-ì/, /dì-/ ... /-ì/	/là-/
<u>Plural</u>	/jo-/	/tyéɲ/, /joɭ/	jo-	/dì-/ ... /-è/	/lò-/

4.3.1 Agentive prefixes in Shilluk

Kohnen (1933:143f) identifies two different forms of agentive compositions: the ‘qualitative form’, signifying an occasional agent, and the ‘applicative form’, indicating a habitual agent.

<u>Singular</u>	<u>Meaning</u>	<u>Form</u>
ɲati ²⁸ <i>thal, jal thal</i>	<i>a cook by profession</i>	applicative
ɲan <i>tado</i>	<i>a man who occasionally cooks</i>	qualitative
ɲati <i>gwet, jal gwet</i>	<i>a clerk by employment</i>	applicative
ɲan <i>gwedo</i>	<i>a man who is writing now</i>	qualitative

From the examples above we note that the verbs also appear in different forms. In this regard Kohnen (1933:31f, 123f) identifies two different forms of the verb, which he calls ‘qualitative form’, used when the verb is used in an intransitive way, and ‘applicative form’, which implicates a direct object (cf. Tucker/Bryan 1966:424). He also describes a further

²⁸ In Westermann (1912) this form is *ɲate*. Although it is the same form and the difference should be caused by a different transcription or dialectal variations, in this example the original form by Kohnen was kept

dative form of the verb, which implicates a dative object (eventually combined with a direct one). E.g. (ibid. 123):

<i>ya thal</i>	<i>I cook</i> (applicative form --» this form cannot stay alone, but requires a direct determinate object)
<i>ya thala riñani</i>	<i>I cook this meat here</i> (the final a in thala is the ‘direct object accusative mark’)
<i>ya tado</i> (<i>ṭaḍo</i>) ²⁹	<i>I am cooking</i> (qualitative form --» without referring to any particular object)
<i>ya tatta</i> ³⁰ <i>wia</i>	<i>I cook / I am cooking for my father</i> (dative form)

Westermann (1912:29,77) explains these two forms in a different way: the ‘applicative form’ of the verb described by Kohnen should be in his opinion a verbal noun. The two forms of the agentive noun are then built as follows:

- occasional doer (Kohnen’s ‘qualitative form’): /ḡate/ + demonstrative /n/ connected to the present tense of the verb (e.g. /ḡaan gɔɔgɔ/ or /ḡaan e gɔɔgɔ/ - ‘one who is working just now’)
- habitual doer (Kohnen’s ‘applicative form’): /ḡate/ without a demonstrative pronoun is combined with the verbal noun (e.g. /ḡate gwək/ - lit. ‘a man of working’ --» a worker)

A similar feature can be found also in Luo verbs. As already mentioned in 2.4 ATR has a grammatical function in verbs which are [+ATR] in their transitive and imperative form, while they have [-ATR] quality in their intransitive form (Swenson 2015:120ff). Tucker (1994: 86ff,89ff,110) describes this phenomenon with the same terminology used by Kohnen. In particular the transitive form coincides with the applicative one and has a specific meaning related to the object of the action, whereas the intransitive coincides with the qualitative one and expresses a general meaning of the action.

²⁹ Westermann (1912:293) translates *to cook* as /ṭāḍɔ/, /ṭālɔ/. Considering that the orthography in Kohnen (1933) is not very accurate and the fact that dental and alveolar stops have phonemic status in Shilluk, <thadho> /ṭaḍɔ/ should be the correct form

³⁰ The correctness of the orthography of this form is questionable as well for the same reason as in ²⁹

Agentive nouns in Luo may be formed with the agentive prefix followed by the applicative or the qualitative form of the verb, or by a verbal noun, depending on the connotation of the doer which has to be expressed, occasional or habitual. Verbal nouns are derived from the applicative form of the verb, which is the result of elision of the last vowel of the stem and root-final consonant change. The following examples also show the behaviour of ATR quality among applicative and qualitative forms, and verbal noun (Tucker 1994:97):

<u>Applicative form</u>	<u>±ATR</u>	<u>Qualitative form</u>	<u>±ATR</u>	<u>Verbal noun</u>	<u>±ATR</u>
/cabɔ/	[-ATR]	/cépò/	[+ATR]	/cáp/	[-ATR]
<i>to disorganise</i>				<i>disorder</i>	
/hewɔ/	[-ATR]	/hépò/	[+ATR]	/hép/	[-ATR]
<i>to beat, excel</i>				<i>ability to excel</i>	
/cweyo/	[+ATR]	/cwécò/	[+ATR]	/cwec/	[+ATR]
<i>to create</i>				<i>creation</i>	

The following examples show how the connotation that may be expressed in terms of an object-specific or more general action, as well as of habitual or occasional doer, depending on the different ways of formation of the agentive noun (either with the applicative form of the verb, the qualitative one, or the verbal noun) (Tucker 1994:110):

<u>to create</u>	<u>Appl. Form: cweyo</u>	<u>Qual. Form: cwécò</u>	<u>Verb. Noun: cwec</u>
/Jacwe ágúlú nî/ ³¹	<i>the maker of this pot</i>	--» occasional, transitive	
/Jacwécò/	<i>professional maker</i>	--» occasional, intransitive	
/Jacwec/	<i>creator</i>	--» habitual	
/Jacwec agulnî/	<i>pot maker</i>	--» habitual	

<u>to carve</u>	<u>Appl. Form: payɔ</u>	<u>Qual. Form: pécò</u>	<u>Verb. Noun: pac</u>
/Ja-pa kó`mbe/ ³¹	<i>the maker of the stools</i>	--» occasional, transitive	
/Ja-pécò/	<i>carpenter by trade</i>	--» occasional, intransitive	
/Ja-pac/	<i>carver in general</i>	--» habitual	
/Ja-pác kó`mbe/	<i>stool maker</i>	--» habitual	

³¹ In both these forms the suffix /-yo/ or /-yɔ/ was elided. When combined with an object, the verbal stem of the agentive noun loses its last vowel (if there is any). In case the verb has the semivowel /y/ as root-final consonant, this is dropped as well

The first forms of both the examples are formed with the stem of the applicative form of the verb and the prefix /ja-/, indicating an occasional doer related to a specific object. The second forms are instead formed with the qualitative form of the verb and the prefix /ja-/, referring to a more general occasional doer. The last two forms of both the examples are formed with the verbal noun (derived from the applicative form of the verb) and they indicate a habitual doer.

The following Shilluk examples by Storch (2005:273) show also the plural forms of agentive nouns, which can be compared with Luo ones.

<u>Shilluk</u>			<u>Luo</u>	
<u>Sg.</u>	<u>Pl.</u>	<u>Meaning</u>	<u>Sg.</u>	<u>Pl.</u>
/jal pur/	/ɔk pur/	<i>farmer</i>	/ja-pur/	/jo-pur/
/jal lij/	/ɔk lij/	<i>warrior</i>	/ja-lwɛj/	/jo-lwɛj/
/jal dwár/	/ɔk dwár/	<i>hunter</i>	/ja-dwar/	/jo-dwar/

4.3.2 Agentive prefixes in Anywa

Similarly to the previously analysed languages also in Anywa there are two different forms of the verb, the ‘applicative’ and the ‘qualitative’ one. Reh (1996:221) however prefers to use a different terminology, for the term ‘applicative’ is widespread in bantu linguistics with a different meaning, which could cause misleading associations. She prefers instead to talk about ‘bivalent transitive’ verb forms (the ‘applicative’) and ‘related detransitive’ or ‘patient-deleting-forms’ (the ‘qualitative’). She explains the ‘related detransitive’ form as a derivation which combines two different functions:

- a syntactic function: bivalent transitive verbs will be turned into monovalent ones, leaving the more active participant, typically an agent, as the sole participant of the derived verb form;
- a semantic function: the verbs are shifted from the terminative to the durative class

The following examples taken from Reh (1996:191f, 194, 220) are showing the behaviour of ‘applicative’ (a., b. and c.) and ‘qualitative’ (d.) forms of the verb in Anywa in different clause constructions:

- a. /'òtó ā-géēr-ē/
house PST-build:3S
She/he built a house
- b. /'òtó ā-géēr jìlàal/
house PST-build child
The child built a house
- c. /jàál 'òtó ā-géēr-ē/
old man house PST-build:3S
The old man built a/the house [and then...]
- d. /jàál ā-géeDó/ + optionally /kī 'òtó/
old man PST-build:PD + optionally OBL house
The old man was building (optional: a house) [and then...]

In a. and b. the word order of the clauses is OVS, with a suffixed personal pronoun as subject in the former example, and a noun as subject in the latter one. In noun phrase initial clauses (examples c. and d.) the subject preceeds the verb. In c. the word order is SOV, whereas in d. the verb is in its qualitative form (or ‘related detransitive’) and the word order is SV. In this case the verb doesn’t support an object. However, this may turn up as an optional participant marked by the oblique case preposition /kī/ (Reh 1996:384). The use of the qualitative form in d. implicates a shift to the durative aspect as well. It can be also noted that, similarly as in Luo, a verb which has [-ATR] vowels in its applicative form changes to [+ATR] in the qualitative one. A change in the last consonant and eventually in the tone (not in the quoted examples) takes also place.

Agentive nouns in Anywa are formed with the stem of the detransitive verb form and the suffix /-ì/. This construction denotes a person who doesn’t perform the action on

professional basis, an occasional doer. To indicate that the action is performed habitually or professionally, the agentive noun takes also the prefix /dì-/ (Reh 1996:148), e.g.:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>From verb</u>	<u>Detransitive form</u>
/tèeDì/	<i>cooking person</i>	/tèeDDè/	/ṭaal/	/téeDó/
/mùDì/	<i>cheater</i>	/mùDDè/	/mōD/	/mùDò/
/dì-tèeDì/	<i>cook</i>	/dì-tèeDDè/	/ṭaal/	/téeDó/
/dì-gòoDì/	<i>secretary</i>	/dì-gòoDDè/	/gòor/	/gòoDò/

Among the Western Nilotic languages the prefix /dì-/ is used in the formation of agentive nouns only in Anywa (cf. Storch 2005:389). In Luo this prefix can be found only in the singular of the word for ‘man’ or ‘male’ /dícwâ/, (pl.) /cwō/, and in some words indicating female cattle (these will be analysed in a further chapter). However, it is not productive for the formation of agentive nouns.

4.3.3 Agentive prefixes in Pāri

There are two ways for indicating an agentive noun in Pāri: by the prefixes *ni-* and *li-*, or as a compound of *ḡatti* and a specifying word, usually a verb. The plural for all the prefixes is *jo-* (Simeoni 1978:21f).

	<u>Singular</u>	<u>Meaning</u>	
a.	<i>ni-waṭ</i>	<i>traveller</i>	--» <i>waṭ</i> = <i>walk</i>
b.	<i>ni-ter</i>	<i>carrier</i>	--» <i>ter</i> = <i>load</i>
c.	<i>ni-kwac</i>	<i>begger</i>	--» <i>kwac</i> = <i>to beg</i>
d.	<i>ni-pwoṇ</i>	<i>teacher</i>	--» <i>pwoṇ</i> , <i>poṇo</i> = <i>to teach</i>
e.	<i>li-cwēc</i>	<i>potter</i>	--» <i>cwēc</i> = <i>to mould</i>
f.	<i>li-ḡutti yaṭ</i>	<i>wood-cutter</i>	--» <i>ḡutti</i> = <i>to cut</i> ; <i>yaṭ</i> = <i>tree, wood</i>

Simeoni (1978:22) quotes also some other examples showing two ways of building agentive nouns with different forms of the same verb resulting in slightly different connotations. However, he doesn't give any explanation of the two forms mentioning only their meaning:

	<u>Form A</u>	<u>Meaning</u>	<u>Form B</u>	<u>Meaning</u>
g.	<i>ɲatti tic</i>	<i>a workman</i>	<i>ɲatti tio</i>	<i>a (certain) man works</i>
h.	<i>ɲatti kur</i>	<i>a watchman</i>	<i>ɲatti kuro</i>	<i>a (certain) man watches</i>
i.	<i>ɲatti koj</i>	<i>a helper, assistant</i>	<i>ɲatti kojo</i>	<i>a (certain) man helps</i>

Päri has, similarly to the other Western Nilotic languages already analysed, an applicative and a qualitative form of transitive verbs. The qualitative form is followed by a direct object (e.g. *a-tala riŋo* ‘I cook meat’), whereas the applicative form is not followed by any object, or, if there is any, it is expressed in an indirect way through the preposition *ki* (e.g. *aṭedo* ‘I cook’; *aṭedo ki riŋo* ‘I cook meat’). Furthermore, the qualitative form may express durative aspect (Simeoni 1978:48f). Therefore, the correct translation for *aṭedo ki riŋo* should be ‘I am cooking meat’. These forms are coinciding with the ones seen in the previous paragraph for Anywa, where the preposition *ki* has the same oblique case function.

In Luo and in Shilluk the agentive noun expressing a habitual doer is formed with the verbal noun derived from the applicative form of the verb and the agentive suffix. The following analyse of Päri forms should confirm if this consideration can be extended also to this language. In this regard I have tried to analyse the verbs contained in the two forms A and B of the examples g. to i., also compared with a. to d.. The first note is that all the verbs of the ‘Form B’ in g. to i. end with the suffix *-o*, whereas the ones of the ‘Form A’ and the ones in a. to d. all end with a consonant. These forms have been then compared with the ones in the table of transitive verbs provided by Simeoni ³² (ibid. 67-71).

	<u>Meaning</u>	<u>Appl. present</u>	<u>Appl. past</u>	<u>Qualitative</u>	<u>Infinitive</u>
j.	<i>to help</i>	<i>yi-koj-a</i>	<i>a-koj-e</i>	<i>-kujo, -kujo</i>	<i>kujo, kojji</i>
k.	<i>to watch</i>	<i>yi-kur-a</i>	<i>a-kur-e</i>	<i>-kuro</i>	<i>kuro, kuyi</i>
l.	<i>to work</i>	<i>yi-tic-a</i>	<i>a-tic-e</i>	<i>-tio</i>	<i>tiici</i>

The applicative forms in the present tense in the previous table all end with the suffix *-a*. Although Simeoni doesn’t explain the meaning of this suffix, it can be assumed that it

³² The table by Simeoni is somehow confusing. He quotes one form of the verb as ‘applicative present + past’, although the two tenses have different forms, as he also states in his note (Simeoni 1978:65). Furthermore, the conjugated examples with the clitic pronouns of the 1st pers. sg. (prefix *a-* in the applicative present and qualitative present and past, suffix *-a* in the applicative past) may be confused with the tense-marking prefix *a-* for the applicative past forms, and therefore I will quote examples of the 3rd person sg. (prefix *yi-* in the applicative present and qualitative present and past, suffix *-e* in the applicative past)

represents a ‘direct object accusative mark’ similarly as what described by Kohnen for Shilluk (cf. 4.3.1). The qualitative forms instead end all with the suffix *-o*, similarly as in Luo and in Shilluk.

According to these considerations it can be assumed that the verbs in ‘Form B’ in g. to i. are all ‘qualitative’, whereas the ones in ‘Form A’ coincide with the roots of the applicative verbs, suggesting that they could be verbal nouns derived from the applicative forms of the verbs. This interpretation matches with the behaviour of the ‘qualitative’ and ‘applicative’ forms in Luo and in Shilluk. Therefore it can be assumed that the forms in ‘B’ of the examples g. to i. are ‘qualitative’ expressing occasional doer. On the other hand the forms in ‘A’ and the forms with the prefix *ni-* in the examples a. to d. are all ‘applicative’ and they express habitual doer. The last two forms in the examples e. and f. with the prefix *li-* cannot be interpreted in the same way. Unfortunately, the available sources are not helpful to explain exhaustively this last forms.

4.3.4 Agentive prefix in Acholi

In Acholi agentive nouns are formed by the prefix /là-/ for the singular and /lò-/ for the plural (Crazzarola 1955:41,133), e.g.:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/làteèt/	<i>smith (/tètò/ = to forge)</i>	/lòteèt/
/làteèk/	<i>disobedient person</i>	/lòteèk/
/làreèm/	<i>friend</i>	/lòreèp/
/làgòbà/	<i>liar</i>	/lògòbà/
/làpfùur/	<i>cultivator</i>	/lòpfùur/
/làtiic/	<i>worker</i>	/lòtiic/
/làcweèc/	<i>potter</i>	/lòcweèc/
/làpaac/	<i>carpenter</i>	/lòpaac/
/làkaà bēel/	<i>harvester of corn</i>	/lòkaà bēel/

According to Crazzarola (1955:111) also in Acholi often transitive verbs have a corresponding intransitive counterpart, which in few cases is slightly modified. As already

seen for other Western Nilotic languages, there is also in Acholi a ‘qualitative’ and an ‘applicative’ form of the verbs. He quotes the following two examples, but he doesn’t give an accurate explanation of how these forms work.

Qualitative form:

/neénô/ *to see (i.e. not being blind)*

/pyètò/ *to winnow*

Applicative form:

/nèèò gín mótò/ *to see a thing*

/pyètò bèl/ *to winnow corn*

From the examples above it is possible to evince that also in Acholi, similarly as what already has been seen for Luo, if the ‘applicative’ form has vowels with [-ATR] quality, the ‘qualitative’ form on the other hand has [+ATR] vowels. However it is unclear if this feature is still active in this language, or it can be found in some cases as remnants of the old system. To make a more accurate comparison some other verbs which have corresponding forms in Luo were searched in the vocabulary in appendix of Crazzarola’s grammar (1955).

a. /kaàyò bèl/ *to harvest corn*

/làkaà bèl/ *harvester of corn*

/làkaac/ *harvester*

b. /cweèyò/ *to form, shape*

/cweèyò àgulu/ *to shape pots*

/cweèc/ *pottery*

/làcweèc/ *potter*

c. /paàcò/ *v.t. to pare, cut off or away the rougher superfluities*

/paàyò/ *v.t. to trim, whittle, dress further (as wooden implements) after the rougher superfluities have been removed (paàcò)*

/paac/ *carpentry*

/làpaac/ *carpenter*

From the examples above it can be noted that there is only one pair of verbs, which could be seen as the ‘applicative’ and the ‘qualitative’ form of the same verb, respectively /paàyò/ and /paàcò/, although their meaning is slightly different. The corresponding forms in

Luo are /payɔ/ and /pécò/ (cf. 4.3.1 page 72 and Tucker 1994:110). In the Acholi forms, there is no sound change in the vowels of the two forms.

The Acholi verb /kaàyò/ ‘to harvest’ corresponds to the ‘applicative’ Luo form /kayɔ/. The derived agent noun /làkaà bæɛl/ ‘harvester of millet’ can be compared with the Luo /ja-ka-bél/ having the same meaning. In Luo the agentive noun forms derived from applicative verbs ending in -yo drop the suffix when forming compounds with a specifying object (e.g. /jacwe ágúlú nî/, /japa kó`mbe/ - cf. 4.3.1 page 72). The Acholi /làkaà bæɛl/, derived from /kaàyò bæɛl/, seems to have dropped the suffix in the same way it happens in Luo.

In all the three examples the general agentive nouns /làkaac/, /làcweèc/ and /làpaac/ all end with /c/. In Luo applicative nouns having as root-final consonant /y/ change this to /c/ when forming a verbal noun and the corresponding agentive noun. It could be then assumed that the three mentioned Acholi examples are agentive nouns derivated from an applicative verb and by these means indicating a habitual doer, a profession, similarly as what has been seen in Luo, Shilluk, Pàri and Anywa.

4.4 Prefixes indicating ‘nationality’ in Shilluk, Pàri, Anywa and Acholi

Prefixes indicating ‘nationality’ vary in each language. In Luo they coincide with the prefixes for agentive nouns, /jà-/ (sg.) and /jò-/ (pl.) (cf. 3.2.2.1). In the other analysed languages, however, they may have different forms. In Acholi the prefix for agentive nouns *là-* may be used for the singular, although more frequently no prefix is used. In the plural *jɔ̀-* and *lò-* are used, the first one more commonly (Crazzarola 1955:42). See the following examples from Acholi:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/Pàtíkô/ or /Là-pàtíkô/	<i>man of Patiko</i>	/Jò-Pàtíkô/
/Pàyĩira/ or /Là-pàyĩira/	<i>man of Payĩira</i>	/Jò-Pàyĩira/
/Pàlwóò/ or /Làlòka/	<i>people in N. Unioro</i>	/Jò-Pàlwóò/ or /Lòlòka/

It can be noted that the names of the villages mentioned in the above examples begin all with *pà-*. This should not be a coincidence, for also in Shilluk a prefix *páa-* (or *fáa-*) is used in

forming names of places (Westermann 1912:28). This comes from the word /pác/ (cf. Luo <*pacho*> /paco/ (Odaga 2005:280; Tucker 1994:534), Acholi /paàco/ (Crazzarola 1955:360), Pări *pajo* (Simeoni 1978:113)).

In Shilluk, Pări and Anywa the prefixes to express the ‘nationality’ have different forms according to the sex of the person they are referred to. In Pări such prefixes are *ni-* (m.) and *niyo-* (f.) for the singular, and *jo-* (m.) and *māndi-* (f.) for the plural (Simeoni 1978:24ff). The female plural prefix *māndi-* means ‘women’ (for details see 4.6.2). E.g.:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
<i>ni-päri</i>	<i>a Pări man</i>	<i>jo-päri</i>
<i>niyo-päri</i>	<i>a Pări woman</i>	<i>māndi-päri</i>
<i>ni-liṭugo</i>	<i>a Lotuxo man</i>	<i>jo-liṭugo</i>
<i>niyo-liṭugo</i>	<i>a Lotuxo woman</i>	<i>māndi-liṭugo</i>

In Shilluk these are *o-* (m.) and *ja-* (f.) for the singular, while in the plural there is no prefix (Kohnen 1933:11,17; Westermann 1912:47,50). E.g.:

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/ócóòlò/	<i>a Shilluk man</i>	/cool/
/nacollo/	<i>a Shilluk woman</i>	
/ójáàṅò/	<i>a Dinka man</i>	/jáàṅ/
/naṇaṇo/	<i>a Dinka woman</i>	

In Anywa /*ni-*/ is used for the female singular, while /*nī-*/ is used for the male singular and both plurals (Reh 1996:153f).

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>
/nī-sùdáàn/	<i>Sudanese woman</i>	/nī-sùdáàn/
/nī-jérmān/	<i>German woman</i>	/nī-jérmān/
/nī-sùdáàn/	<i>Sudanese man</i>	/nī-sùdáàn/
/nī-jérmān/	<i>German man</i>	/nī-jérmān/

4.5 Diminutive prefixes in Shilluk, Pāri, Anywa and Acholi

The following table resumes the diminutive prefixes in all the analysed languages:

	<u>Singular</u>	<u>Plural</u>	<u>Example(s)</u> ³³
<u>Luo</u>	/ná-/	/nì-/	/na-rɔmbɔ/ ‘lamb’ /ni-rombe/ ‘lambs’
<u>Shilluk</u>	<i>na</i>	<i>nwole</i>	<i>na wot</i> ‘a small house’ <i>na nam</i> ‘a small river’ <i>na nel tin</i> ‘a small boy’ <i>nwol yaŋ tonno</i> ‘little boys’
<u>Anywa</u>	/nì-/	/nĩ-/	/nì-róɔ́/ ‘calf’ /nĩ-róɔ́é/ ‘calves’
<u>Pāri</u>	<i>ni</i>		<i>ni-otto</i> ‘a small hut’ <i>ni-toŋ</i> ‘a small spear’
<u>Acholi</u>	/làtéén/ /là-/		/làtéén dyaàŋ/ ‘young of a cow, calf’ /làtéén ɔ̀t/ ‘a small hut’ /là-rɔ̀mɔ̀/ ‘lamb’

Diminutive prefixes are always derived from a word meaning ‘child’ or ‘daughter’, although in every language this can be different. The most significative example is the Acholi /làtéén/ ‘child’, used in its extended form, or inflected as a prefix. According to Reh (1996:152ff) the Anywa prefixes /nì-/ (sg.) and /nĩ-/ (pl.) are identical with the forms of the status constructus of the noun /nèy/ (sg.) ‘daughter’, /nèeDì/ (pl.). In Anywa these prefixes can also be used to form names of fruits of trees (e.g. /nì-jàaŋ/ ‘fruit of the *jàaŋ* tree’, /nĩ-jènní/ (pl.); /nì-túó/ ‘coconut’ (sg.) (from /túó/ ‘coconut tree’), /nĩ-túé/ (pl.)), or small quantities of something (e.g. /nì-píi/ ‘drop of water’, /nì-mòɔ̀/ ‘a bit of flour’).

In Shilluk it is unclear if the prefixes are related the word ‘child’ or ‘daughter’. The two main sources for this language, Westermann (1912) and Kohnen (1933), report different terms for the two meanings:

³³ Examples from: Tucker (1994) for Luo, Kohnen (1933) and Westermann (1912) for Shilluk, Reh (1996) for Anywa, Simeoni (1978) for Pāri, Crazzarola (1955) for Acholi

<u>Singular</u>	<u>Meaning</u>	<u>Plural</u>	<u>Source</u>
<i>nar</i>	<i>daughter</i>	<i>nywole</i>	Kohnen 1933:233
/nà/	<i>child</i>	/ɲwòli/	Westermann 1912:293
<i>ni</i>		<i>nig</i>	Kohnen 1933:227
/nàn/	<i>girl</i>	/ɲwòl/	Westermann 1912:296
<i>nan</i>		<i>woo</i>	Kohnen 1933:248
<i>na</i>		<i>ɲwole</i>	

In some languages the word for ‘girl’ and the one for ‘daughter’ are identical, as e.g. in Luo: /nákô/ (sg.), /ɲiri/ (pl.). In this language it is also not clear if the diminutive prefixes originate from this word or from the word for child, /ɲaŋ/ (sg.), /ɲíŋ ndo/ (pl.), which contains the same prefixes in both the singular and the plural forms. In Pāri the diminutive prefix seems to be derived from the word *nyiy* (sg.) ‘child’, *nyidi* (pl.).

In some of the analysed languages the diminutive prefixes are identical with prefixes having different functions. In Acholi the prefix /là-/ is also used to form agentive nouns and nouns expressing ‘nationality’. In Pāri the prefix *ni-* is used to form singular agentive nouns (as an alternative to *ɲatti*) and for singular male nouns expressing ‘nationality’. In Anywa the prefixes /ɲi-/ (sg.) and /ɲĩ-/ (pl.) are found in singular and plural female nouns respectively expressing ‘nationality’. In Shilluk the prefix *na-* is also used for singular female nouns expressing ‘nationality’. Unfortunately there are no records for the plural forms in the latter language.

From the quoted examples it can be deduced that in languages where the diminutive prefix has originated from the word ‘child’, if this prefix is eventually used also for agentive noun or noun expressing ‘nationality’, its use is restricted to male forms, or eventually for a neutral form which includes both males and females. On the other hand, diminutive prefixes originated from the word ‘daughter’ or ‘girl’, if used also for agentive nouns or noun indicating ‘nationality’, are restricted to the female form only.

In the analysed languages there are no augmentative prefixes. However, some languages have some special terms to express an augmentative, which are preponed to the noun. In Acholi the word /twòɔn/ ‘bull’ (sg.), /cogi/ (pl.) is used for male and female persons, and things (e.g. /twòɔn làcòò/ ‘a big man’, /cogi yààt/ ‘very big trees’). For female living beings is

used /mĩn/ ‘mother’ (sg.), /mègì/ (pl.) (e.g. /mĩn lyeèc/ ‘big female elephant’, /mègì lyeèc/ (pl.)) (Crazzarola 1955:45). In Shilluk *gog de* is used to indicate an increase of the noun in both singular and plural (e.g. *gog de ɬwol* ‘a huge snake’, *gog de ɬoli* ‘huge snakes’, *gog de ogoɬ* ‘a splendid dress’) (Kohnen 1933:14).

4.6 Sex-indicating morphemes in Shilluk, Pāri, Anywa and Acholi

As already mentioned in 4.1.3 for Luo, also in the other Western Nilotic languages analysed in this work there is no grammatical gender. However, in all these languages there are some prefixes or particular terms which can be used to specify the sex of a person or another living being. Some examples of such prefixes were already seen in the previous paragraphs, especially concerning nouns indicating ‘nationality’: in some languages there are sex-indicating prefixes to differentiate between males and females. Generally sex-indicating prefixes or terms can be found in three categories of nouns: proper names, kinship terms and names for cattle. These three categories will be analysed in the following paragraphs.

4.6.1 Proper names

In 3.3.1 it was shown that Luo names are mostly related to the experience or circumstance of the parents when the child was born, or to the time of birth. These names always have forms which are distinguished by two different prefixes: /a-/ for females, and /ɔ-/ for the males. Similar prefixes can be found in Acholi: according to Crazzarola (1955:50) the prefixes /ò-/ and /à-/ are derived from /wód/ ‘son’ and probably from /paà/ ‘daughter’ respectively. In Shilluk these prefixes are *o-* and *ja-* (Breidlid 2014:70f): in this case the female prefix is the same as the one used for the diminutive, probably derived from the word for ‘daughter’. The same prefixes are used for nouns indicating ‘nationality’ (see 4.2.4). Simeoni (1978:24) provides a larger set of prefixes for proper nouns in Pāri: *u-*, *li-* and *ji-* are male, whereas *a-*, *ni-* and *ja-* are female. The prefixes *li-* and *ji-* are also used in the formation of agentive nouns in Pāri. On the other hand *ji-* is used also as diminutive prefix and for nouns indicating ‘nationality’, but in this last case only for the male form. The prefix *ja-*, similarly as for the other languages, is probably derived from the word for ‘daughter’,

nako (also meaning ‘girl’ in Pāri). In Anywa the prefixes for proper names have the same forms as the ones in Luo and Acholi, but in this language they are different from those used to express ‘nationality’ (Reh 1996:151). The following table shows examples of proper names related to the experience or circumstance of the parents at child’s birth in Luo, Acholi, Pāri and Shilluk ³⁴ :

<u>Luo</u>	<u>Acholi</u>	<u>Pāri</u>	<u>Shilluk</u>	<u>Anywa</u>
⟨ <i>Okoth</i> ⟩	⟨ <i>Akoth</i> ⟩	<i>Ukoṭ</i> <i>Nikoṭ</i>		
		‘born with the rain’ (also in the rainy season)		
⟨ <i>Okech</i> ⟩	⟨ <i>Akech</i> ⟩	<i>Ukec</i> <i>Nikec</i>	<i>Okac</i> <i>Nakac</i>	
		‘born in famine’		
		<i>Òyóò</i> <i>Áyóò</i> <i>Uyoo</i> <i>Ayoo</i> <i>Uyoo</i> <i>Ayoo</i>		
		‘born on a journey’ (literally ‘on the road’)		
⟨ <i>Opiyo</i> ⟩	⟨ <i>Apiyo</i> ⟩	<i>Òpīṛò</i> <i>Àpīṛò</i> <i>Upieu</i> <i>Apieu</i>	<i>/Ōpīw/</i>	<i>/Āpīw/</i>
		‘first-born of twins’		
⟨ <i>Odongo</i> ⟩	⟨ <i>Adongo</i> ⟩	<i>Ōceen</i> <i>Àceen</i> <i>Ucāān</i> <i>Acāān</i>	<i>/Ōcāan/</i>	<i>/Ācāan/</i>
		‘second-born of twins’		

Other Acholi names: *Ōlúùm*, *Álúùm* ‘born on grass’, *Ōdooc*, *Ádooc* ‘came forth with legs first’

Other Pāri names: *Utoŋ*, *Nitoŋ* ‘born during war’, *Liduba*, *Nikalo*, *Urua*, *Ujwok*, *Uwendo*, *Likori*

Children may also be named after an ancestor or a close relative such as aunt, uncle, grandfather and grandmother. However, they cannot get the same name as their father or their mother. The Shilluk in particular don’t name a child after a living person by tradition (Ochollo-Ayayo 1976:182; Mutho 2020:201ff; Breidlid 2014:70f).

In Luo there is a set of proper names indicating the time of the child’s birth. It is not clear whether such nouns are used also in other languages, for no evidence of this was found. According to Ocholla-Ayayo (1976:182ff) this naming system is related to traditional Luo religious beliefs. The sun, *chieng*, has a fundamental role in it, for it is assumed to be the ‘eye

³⁴ Examples from: Ojijo (2012) for Luo, Breidlid (2014) for Shilluk, Simeoni (1978) and Mutho (2020) for Pāri, Crazzarola (1955) for Acholi, Reh (1996) for Anywa

of God'. The naming system is based on the principle of the sun's different positions in relation to the earth during the day and its corresponding positions by night. The following table shows all the proper names which are part of this system:

<u>Masculine</u>	<u>Feminine</u>	<u>Meaning</u>
⟨Okinyi⟩	⟨Akinyi⟩	'born between 5 am and 7 am'
⟨Onyango⟩	⟨Anyango⟩	'born between 7 am and 9-10 am'
⟨Ochieng'⟩	⟨Achieng'⟩	'born between 11 am and 1 pm'
⟨Odhiambo⟩	⟨Adhiambo⟩	'born between 2 pm and 5 pm'
⟨Otieno⟩	⟨Atieno⟩	'born after sunset'
⟨Odiwuor⟩	⟨Awuor⟩	'born at midnight'
⟨Ogweno⟩	⟨Agwena⟩	'born after midnight to 4 am'

4.6.2 Kinship terms

As already pointed out in 3.3.2 and 3.2.3, kinship terms in Luo are mostly irregular, having forms which may even completely differ in the singular and in the plural. In this section such names will be analysed one by one. First some consideration will be done about the word for 'child', which has a different form in every of the analysed languages:

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>
sg	/naṭí/	/nà/, <i>ni</i> ³⁵	/nìlàal/	/nìy/, <i>pondo</i>	/làtèèn/
pl	/níṭíndo/	/nwòlì/, <i>nig</i> ³⁵	/ōbúuré/, /ōlÁDé/	/nidi/, <i>ponde</i>	/lotèènò/

The Luo plural form /níṭíndo/ shows some peculiarity in that it brakes the consonant harmony, for the first consonant is a dental plosive, while the second an alveolar nasal compound. Both the singular and the plural forms are composed of prefixes, which seem to be diminutive prefixes, and a stem. Similarly the Acholi forms by Crazzarola (1955) are composed of diminutive prefixes and a stem. In Luo the non prefixed words */ṭí/ and */ṭíndo/ do not exist, but they could be a modification of the word for 'small' /tí n/ (sg.) - /tíndo/ (pl.) (Tucker 1994:543). The singular form has also no root-final consonant, which in the plural is

³⁵ First example from Westermann (1912:293), second from Kohnen (1933:227)

represented by an alveolar nasal compound, normally changing with the alveolar nasal /n/. The Acholi stem /t̥ɛ̀n/ seems also to be derived from the word for ‘small’ /t̥ɛ̀di/ (sg.) - /t̥ɛ̀nò/ (pl.) (Crazzarola 1955:391) (note also the transcription of the full noun by Blackings (2009:146) /làtín/). The words for ‘small’ in other languages are /t̥ɛ̀n/ (sg.) - /t̥ɛ̀nò/ (pl.) in Shilluk (Westermann 1912:303), *t̥ɛ̀n* (sg.) in Pāri (Simeoni 1978:110). In Pāri and in Shilluk, having dentals stops in their consonant inventory including the nasal dental /ɲ/, these words are all composed by dental stops because of consonant harmony. Acholi has no dentals in its inventory, while Luo has only dental plosives and a dental nasal compound, but no dental nasal, which was probably lost diachronically. The actual Luo irregular forms then could be seen as modification of original forms */ɲat̥ɛ̀n/ (sg.) and */ɲit̥ɛ̀nɔ/ (pl.).

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Pāri</u>	<u>Acholi</u>	<u>Meaning</u>
sg.	/ɖanɔ/	/ɖáàɲ/	/ɖàanó/	<i>ɖaɲo</i>	/daánô/	<i>person</i>
pl.	/ɟi/	/ɟɛ̀é/, /lwak/	/ɟóɔ/, /ɟěy/	<i>jou, lwak</i>	/ɟɔ̀ò/, /ɟĩ/	<i>people</i>
sg.	/ɖákô/	/ɖáàcò/, /ɖáákàù/, <i>ɖajo</i> ³⁶	/ɖáagó/	<i>ɖago</i>	/daákô/	<i>woman</i>
pl.	/món/	/mààn/	/m̩ʌʌn/	<i>mān</i>	/moon/	<i>women</i>
sg.	/ɲakɔ/	/ɲàn/	/ɲákóò/	<i>ɲako</i>	/ɲaákô/	<i>girl</i>
pl.	/ɲiri/	/ɲwòl/	/ɲʌʌkúué/	<i>ɲaköwe</i>	/əɲiirà/	<i>girls</i>

The table above shows the words for ‘person’, ‘woman’ and ‘girl’ in all the analysed languages. It can be noted, that all the plural forms are irregular, although the plurals for ‘person’ and ‘woman’ are evidently derived from a common form respectively (with exception for *lwak* in Shilluk and in Pāri). The singular form of the nouns for ‘person’ is very similar in all the languages, having the correspondent non-dental stops instead of dental ones, when these are not available in the consonant inventory of a specific language. The singular form for ‘woman’ is also derived from the same proto-term. In the most cases, the second consonant is a velar plosive, voiced or voiceless, and only in Shilluk this is a palatal plosive in two of the three proposed transcriptions. The same relation can be stated for the words for ‘girl’. All the three forms are composed: e.g. in Luo /ɖa-nɔ/, /ɖá-kô/ and /ɲa-kɔ/. The words for ‘person’ and ‘woman’ have the common prefix /ɖa-/, whereas ‘woman’ and ‘girl’ have the

³⁶ First two examples from Westermann (1912:306), third from Kohnen (1933:315)

same stem /kɔ/. The meaning of the morpheme /ɖa-/ is unknown (cf. Heusing 2004:352), although it should be obviously connected with the concept of ‘person’ or ‘human being’. It is interesting to note the *N/*K alternation in the two singular forms for ‘person’ and ‘woman’, but this may simply be a coincidence, for /ɖano/ in all the languages is a general term which includes men and women, while /ɖákô/ is female. A nasal stop in root-final position may also point to a form in status constructus, as is common in Anywa, Shilluk and Pări. The morpheme /kɔ/ may have originated from /kór/ ‘breast’ as supposed by Crazzarola (1955:27f), while the prefix /ja-/ in /jakɔ/ could be a diminutive (although /ja-/ is used as diminutive only in Luo). In this sense the two words would mean literally ‘human being with breast’ and ‘child with breast’. The following table shows the terms for ‘breast’ in the analysed languages:

	<u>Luo</u>	<u>Shilluk</u> ³⁷	<u>Pări</u>	<u>Acholi</u>	<u>Meaning</u>
sg	/kór/	/ków/	/kΛw/	/koór/	<i>breast</i> ,
pl		/kóòɾ/	/kòòɾɿ/		<i>chest</i>

The singular forms of this word have /r/ or /w/ in root-final position. As seen in the previous paragraphs liquids and semivowels are quite instable and in some cases are dropped in root-final position. On the other hand, looking at the plural forms for ‘girl’, these are all formed in a different way. The Pări *naköwe* is the plural for *nako*, but the plural form for ‘breast’ in Pări is /kòòɾɿ/, having a dental plosive instead of a semivowel. The correctness of this hypothesis is still not clear, although it could be a reasonable explanation.

In the following pages will be reported tables with the full set of possessive forms of the following kinship terms: ‘wife’ (same as ‘woman’), ‘mother’, ‘father’, ‘brother’, ‘sister’, ‘son’ and ‘daughter’. These examples are taken from Tucker (1994:216ff) for Luo, Kohnen (1933) for Shilluk, Simeoni (1978) for Pări and Crazzarola (1955:76) for Acholi. For some languages unfortunately not all the terms are available and only the known ones will be added to the list. In Reh (1996) no full sets of possessive forms for Anywa kinship terms are available. However, the tables will be filled with some examples taken from the texts in the appendix of her work (ibid. 495-550).

³⁷ The status constructus is *kɔr-* for the singular and *kɔɾ-* for the plural (Kohnen 1933:37)

Wife (= woman)

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	ḡákô	ḡáàcò, ḡáákàù, ḡayo ³⁸	ḡáagó	ḡago	daákô	<i>woman,</i> <i>wife</i>
1sg	cíég-à			<i>cia</i>	cégâ	<i>my</i>
2sg	cíég-i			<i>cii</i>	cégî	<i>your</i>
3sg	cíég-ê		cíi-é	<i>cie</i>	cégê	<i>his</i>
1pl	cí-wá			<i>ciwa</i>	cégwa, ciiwa	<i>our</i>
2pl	cí-ú			<i>ciu</i>	cégwu, ciiwu	<i>your</i>
3pl	cí-gí			<i>cigi</i>	céggî, ciigî	<i>their</i>
n	cí ḡá' tó					<i>somebody's</i>
pl	món	mààn	mālan	mān	moon	
1sg	mónd-à			<i>mānda</i>	moonna	<i>my</i>
2sg	mónd-i			<i>māndi</i>	moonni	<i>your</i>
3sg	mónd-é			<i>mānde</i>	moonne	<i>his</i>
1pl	mónd-wá			<i>mānduwa</i>	moonnwa	<i>our</i>
2pl	mónd-ú			<i>mānduwu</i>	moonnu	<i>your</i>
3pl	mónd-gí		mālgī	<i>māndigi</i>	moongī	<i>their</i>
n	mónd ḡá' tó		mālɾ ...			<i>somebody's</i>

³⁸ First two examples from Westermann (1912:306), third from Kohnen (1933:315)

Mother

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg		<i>may ðaño, mi ðaño</i>	mííó	<i>mio</i>		<i>mother</i>
1sg	mamá	<i>maya, mia</i>	mèrá	<i>mira</i>	màà	<i>my</i>
2sg	merú	<i>mayi, miou</i>	mèrú	<i>miru</i>	mǎǎni, meèni	<i>your</i>
3sg	min, min márê	<i>maye, men</i>	menní	<i>min</i>	mǐnne	<i>his</i>
1pl	minwá	<i>maywon, miwon</i>		<i>miiwa</i>	mǐnwa	<i>our</i>
2pl	minú	<i>maywun, miwun</i>		<i>miwu</i>	mǐnwu	<i>your</i>
3pl	mingí	<i>mayegen, migen</i>		<i>migi</i>	mǐngĩ	<i>their</i>
n	min ñato		mìi ...			<i>somebody's</i>
pl	mínê, mégê	<i>mek ðaño</i>	mée	měě	mègù	<i>mothers</i>
1sg	mínénà, mégénà					<i>my</i>
2sg	mínéni, mégéni					<i>your</i>
3sg	mínéné, mégéné					<i>his</i>
1pl	mínéwà, mégéwà				mègiwa	<i>our</i>
2pl	mínéù, mégéù				mègiwu	<i>your</i>
3pl	mínégi, mégégi		méeggí		mègìgĩ	<i>their</i>
n						<i>somebody's</i>

Father

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	wuoro	wi ḍaṇo	wúoó	wuo		<i>father</i>
1sg	wuorá, babá	<i>wia</i>	wáḡrá	wöra	woòra, àbààna	<i>my</i>
2sg	wuorú	<i>wii, wou</i>	wáḡrū	wöru	wöòru, àbààni	<i>your</i>
3sg	wuon, wuon márê	<i>wie, wen</i>	wáḡnni	wön	wònne, àbààne	<i>his</i>
1pl	wuorwá, wuonwá	<i>wiwon</i>		wuöwa	wònwa	<i>our</i>
2pl	wuorú, wuonú	<i>wiwun</i>		wou	wònwu	<i>your</i>
3pl	wuongí	<i>wigen, wiegen</i>		wuögi	wòngĩ	<i>their</i>
n	wuon ṇato					<i>somebody's</i>
pl	wúónê, wegê		wée	wěě	wègù	<i>fathers</i>
1sg	wúónénà, wégénà					<i>my</i>
2sg	wúónéni, wégéni					<i>your</i>
3sg	wúónéné, wégéné					<i>his</i>
1pl	wúónéwá, wégéwá				wègiwa	<i>our</i>
2pl	wúónéù, wégéù				wègiwu	<i>your</i>
3pl	wúónégi, wégégi				wègigi	<i>their</i>
n	wúóné ji					<i>somebody's</i>

Brother

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	ɔmɪn	<i>umi ɖano</i>	cóoGGó ³⁹	<i>umio</i>		<i>brother</i>
1sg	ɔmérá	<i>omia,</i> <i>umia</i>	cóogwā	<i>umira</i>	òmeéra	<i>my</i>
2sg	omerú	<i>umiow</i>		<i>umiru</i>	òmeéru	<i>your</i>
3sg	ɔmín, ɔmín márê	<i>umen</i>	còkè	<i>umin</i>	òmìnne	<i>his</i>
1pl	ɔmí nwá	<i>umiwon</i>		<i>umiwa</i>	òmìnwa	<i>our</i>
2pl	omí`nú	<i>umiwun</i>		<i>umiwu</i>	òmìnwu	<i>your</i>
3pl	ɔmí`ngí	<i>umigen</i>		<i>umigi</i>	òmìngĩ	<i>their</i>
n	ɔmín ɲato		cōok ...			<i>somebody's</i>
pl	omégê		ɲīmée	umè	òmegù	<i>brothers</i>
1sg	omégéná, omé`gá			<i>umegga</i>	òmegína	<i>my</i>
2sg	omégéni, omé`gú			<i>umeggi</i>	òmegíni	<i>your</i>
3sg	omégéné, omé`gé			<i>umegge</i>	òmegíne	<i>his</i>
1pl	omégéwá, omé`gwá			<i>umegguwa</i>	òmegíwa	<i>our</i>
2pl	omégéú, omé`gú			<i>umegguwu</i>	òmegíwu	<i>your</i>
3pl	omégégí, omé`ggí			<i>umeggigi</i>	òmegígĩ	<i>their</i>
n	omégé ɲato, omé`g ɲato					<i>somebody's</i>

³⁹ This term is sex-neutral and can be used both for ‘brother’ and ‘sister’ (Reh 1996:160). It should have a different original meaning --> compare with Päri *wocogo* ‘nephew’, *ɲicogo* ‘niece’ (Simeoni 1978:37)

Sister

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	ᵐamín	<i>ᵐimi ᵐano</i>		<i>ᵐimio</i>		<i>sister</i>
1sg	ᵐamérá	<i>ᵐimia</i>		<i>ᵐimira</i>	lámèèra	<i>my</i>
2sg	ᵐamerú	<i>ᵐimiow</i>		<i>ᵐimiru</i>	lámèèru	<i>your</i>
3sg	ᵐamín, ᵐamín márê	<i>ᵐimen</i>	--» <i>'brother'</i>	<i>ᵐimin</i>	lámìnne	<i>his</i>
1pl	ᵐamí`nwá	<i>ᵐimiwon</i>		<i>ᵐimiwa</i>	lámìnwa	<i>our</i>
2pl	ᵐamí`nú	<i>ᵐimiwun</i>		<i>ᵐimiwu</i>	lámìnwu	<i>your</i>
3pl	ᵐamí`ngí	<i>ᵐimigen</i>		<i>ᵐimigi</i>	lámìngĩ	<i>their</i>
n	ᵐamín ᵐato					<i>somebody's</i>
pl	ᵐímégê			<i>ᵐimè</i>	lámègù	<i>sisters</i>
1sg	ᵐímégénà, ᵐímé`gá			<i>ᵐimegga</i>	lámègina	<i>my</i>
2sg	ᵐímégéni, ᵐímé`gú			<i>ᵐimeggi</i>	lámègini	<i>your</i>
3sg	ᵐímégéné, ᵐímé`gé			<i>ᵐimegge</i>	lámègine	<i>his</i>
1pl	ᵐímégéwá, ᵐímé`gwá			<i>ᵐimegguwa</i>	lámègìwa	<i>our</i>
2pl	ᵐímégéù, ᵐímé`gú			<i>ᵐimegguwu</i>	lámègìwu	<i>your</i>
3pl	ᵐímégégì, ᵐímé`ggí			<i>ᵐimeggigi</i>	lámègìgĩ	<i>their</i>
n	ᵐímégé ᵐato, ᵐímé`g ᵐato					<i>somebody's</i>

Son

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	wúówi, wúóyi	<i>wat ɖano</i>	wáɫDó	<i>wo, wado</i>	wód	<i>son</i>
1sg	wúódá	<i>wada</i>		<i>wada</i>	wódâ	<i>my</i>
2sg	wúódí	<i>wadi</i>	wáɫdí	<i>wadi</i>	wódî	<i>your</i>
3sg	wúódê	<i>wade</i>	wáɫdé	<i>wade</i>	wódê	<i>his</i>
1pl	wúódwá	<i>watwon,</i> <i>wadwon</i>		<i>wadwa</i>	wódwa	<i>our</i>
2pl	wúódú	<i>watwun,</i> <i>wadwun</i>		<i>wadu</i>	wódwu	<i>your</i>
3pl	wúódgí	<i>wategen</i>		<i>wadigi</i>	wódgĩ	<i>their</i>
n	wúód ɲato		ó ...		wód ...	<i>somebody's</i>
pl	yawúówí, yawúóyí	wati	wáɫDì	wüdo, wadi, wati	wót	<i>sons</i>
1sg	yawúótà			<i>wata</i>	wótâ	<i>my</i>
2sg	yawúóti			<i>wati</i>	wótî	<i>your</i>
3sg	yawúótê			<i>wate</i>	wótê	<i>his</i>
1pl	yawúótwá			<i>watuwa</i>	wótwá	<i>our</i>
2pl	yawúótù			<i>watuwu</i>	wótwu	<i>your</i>
3pl	yawúóti			<i>watigi</i>	wótgĩ	<i>their</i>
n	yawúót ɲato					<i>somebody's</i>

Daughter

	<u>Luo</u>	<u>Shilluk</u>	<u>Anywa</u>	<u>Päri</u>	<u>Acholi</u>	<u>Meaning</u>
sg	ᵐákô	<i>nar ḡano</i>	ᵐèy	<i>ᵐako</i>	ᵐà, ᵐaà	<i>daughter</i>
1sg	ᵐará	<i>ᵐara</i>		<i>ᵐara,</i> <i>ᵐakonna</i>	<i>ᵐaàrâ</i>	<i>my</i>
2sg	ᵐarí	<i>ᵐari</i>		<i>ᵐari,</i> <i>ᵐakonni</i>	<i>ᵐääri</i>	<i>your</i>
3sg	ᵐarê	<i>ᵐare</i>		<i>ᵐare,</i> <i>ᵐakonne</i>	<i>ᵐaàrê</i>	<i>his</i>
1pl	ᵐarwá	<i>ᵐawon</i>		<i>ᵐiwa,</i> <i>ᵐakonnuwa</i>	<i>ᵐaàwa</i>	<i>our</i>
2pl	ᵐarú	<i>ᵐawun</i>		<i>ᵐiwu,</i> <i>ᵐakonnu</i>	<i>ᵐääwu</i>	<i>your</i>
3pl	ᵐargí	<i>ᵐagen,</i> <i>ᵐaregen</i>		<i>ᵐigi,</i> <i>ᵐakonnigi</i>	<i>ᵐaàgĩ</i>	<i>their</i>
n	ᵐar ᵐato	<i>ᵐar ...</i>			<i>ᵐaà ...</i>	<i>somebody's</i>
pl	ᵐiri	<i>ᵐwole</i> <i>ḡano</i>	ᵐèeDì	<i>ᵐaköwe</i>		<i>daughters</i>
1sg	ᵐígá			<i>ᵐaköwa</i>		<i>my</i>
2sg	ᵐígi			<i>ᵐaköwi</i>		<i>your</i>
3sg	ᵐígè			<i>ᵐaköwe</i>		<i>his</i>
1pl	ᵐíwá			<i>ᵐaköwuwa</i>		<i>our</i>
2pl	ᵐíú			<i>ᵐaköwuwu</i>		<i>your</i>
3pl	ᵐígi			<i>ᵐaköwigi</i>		<i>their</i>
n	ᵐí ᵐato	<i>ᵐwole ...</i>				<i>somebody's</i>

From the comparison of the kinship terms presented in the previous pages it is possible to note that the forms in the various languages differ in a lesser extent among themselves, than the forms of regular nouns, which developed different patterns of plural and status constructus formation. Some considerations have to be done.

Considering the examples for ‘wife’ or ‘woman’ it can be noted, that in Luo in the singular all possessive forms for the singular persons have an infix /-ég-/ between the stem and the possessive suffix. In Acholi there are two sets of forms for the possessive plural. One set is formed with the infix /-ég-/ , which is also used for the singular persons in the same way as in Luo, whereas in the other plural set this prefix is not present and the forms are similar to the Luo ones. The infix /-ég-/ is completely absent in Pāri and probably also in Anywa, although only one example for the 3rd pers. sing. was found for the latter language.

A further consideration regards the possessive suffix /-u/ for the 2nd person singular in the words for ‘mother’, ‘father’, ‘brother’ and ‘sister’ in all the languages. This suffix can be found in most of the kinship terms instead of the regular suffix /-i/, at least in Luo and in Acholi, also for other nouns not included in the examples of this work (cf. Tucker 1994:216ff; Crazzarola 1955:76). A possessive suffix /-u/ for the 2nd person singular can be found in Dinka and in Nuer. The following table shows the possessive suffixes in these Western Nilotic languages compared with the ones in Luo (Nebel 1948:11; Bryan 1968:194):

	<u>Dinka</u>		<u>Nuer</u>		<u>Luo</u>
	<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>	
1 st sg	-die	-kie	-(d)ä	-kä	-a
2 nd sg	-du	-ku	-(d)u	-ku	-i
3 rd sg	-de	-ke	-(d)ε	-kε	-ε
1 st pl	-da	-kua	-(d)a (excl.) -(d)aan (incl.)	-kɔ (excl.) -kɔɔn (incl.)	-wa
2 nd pl	-dun	-kun	-(d)uun	-kuun	-u
3 rd pl	-den	-ken	-(d)ieen	-kien	-gɪ

Differently as for the languages analysed in this work, in Dinka and in Nuer there are two sets of possessive suffixes, one for the singular form of the noun, and a second for the plural. The difference consists in an alveolar element for the singular and a velar element for the plural, a typical reflex of *N/*K alternation (Bryan 1968:171f). The possessive suffix /-u/ for the 2nd pers. sg. in the kinship terms in Luo, Shilluk, Anywa, Pāri and Acholi could be a remnant of old possessive suffixes which can be regularly found in Dinka and Nuer.

All the words for ‘mother’, ‘brother’ and ‘sister’ in Luo have originated from the same stem, which is /-mɪn-/ for the 3rd pers. sing. and all the plural persons of the singular form, /-mɛr-/ for the 1st and 2nd pers. sing. of the singular form, and /-mɛg-/ for the plural forms. The word with the non-prefixed stem means ‘mother’, while the prefixed form with /ɔ-/ means ‘brother’, and with /ja-/ ‘sister’. A similar process happens also in Pāri and Acholi. In Shilluk the stems are same for all the possessive forms, except for the 3rd pers. sing., where an /-n/ morpheme is found and a sound change in the stem-vowel takes place.

Considering the word ‘father’ it can be noted that also in this case the stem-final consonant for the singular possessive forms of the 1st and 2nd pers. sing. is always /r/ (Luo, Anywa, Pāri and Acholi), while in the 3rd pers. sing. it is /n/ (in all the languages including Shilluk). The plural forms in Luo and Acholi (there are no records for the other languages) have all /g/ as stem-final consonant. The following table shows the possessive forms of some kinship terms in Dinka (Nebel 1948:48):

	father	mother	brother	sister
1 st sg	<i>wa</i>	<i>ma</i>	<i>wamaaɽ</i>	<i>nankai</i>
2 nd sg	<i>wur</i>	<i>mor</i>	<i>wamuɽ</i>	<i>nankui</i>
3 rd sg	<i>wun</i>	<i>man</i>	<i>wameɽ</i>	<i>nanken</i>
1 st pl	<i>wa-da</i>	<i>ma-da</i>	<i>wamaɽ-da</i>	<i>nankai-da</i>
2 nd pl	<i>wur-dun</i>	<i>mor-dun</i>	<i>wamuɽ-dun</i>	<i>nankui-dun</i>
3 rd pl	<i>wun-den</i>	<i>man-den</i>	<i>wameɽ-den</i>	<i>nanken-den</i>
	fathers	mothers	brothers	sisters
1 st sg	<i>war-kie</i>		<i>wamaɽ-kie</i>	<i>nirakai</i>
2 nd sg	<i>war-ku</i>		<i>wamaɽ-ku</i>	<i>nirakui</i>
3 rd sg	<i>war-ke</i>		<i>wamaɽ-ke</i>	<i>nirake</i>
1 st pl	<i>war-kua</i>	<i>mar-kua</i>	<i>wamaɽ-kua</i>	<i>nirakua</i>
2 nd pl	<i>war-kun</i>	<i>mar-kun</i>	<i>wamaɽ-kun</i>	<i>nirakun</i>
3 rd pl	<i>war-ken</i>	<i>mar-ken</i>	<i>wamaɽ-ken</i>	<i>niraken</i>

The first consideration while looking at these terms is that there are no possessive suffixes for the 1st, 2nd and 3rd singular persons, but instead a change in the stem. The stem vowel of the 2nd pers. sg. changes to /u/ (the same vowel as in the possessive suffix) in three of four cases (only in ‘mother’ it is /o/), while the stem-final consonant is either /r/, /ɽ/ or /y/.

In the 3rd pers. sing the stem-vowel changes to /e/ (the same vowel as in the possessive suffix) in two of four cases, while the stem-final consonant always changes to a nasal, similarly to what has been seen in Luo, Shilluk, Anywa, Pāri and Acholi. In the singular possessive forms for the plural persons in Dinka the stems are the same as in the forms for the singular persons, but in this case they are followed by regular possessive prefixes.

The plural forms in Dinka have all the same stem. Their final consonant is the same as the one of the singular form of the 2nd pers. sg., followed by the plural form of the possessive suffix characterised by a velar element (except for the forms for ‘sister’, which are irregular – note that in Dinka *na* means ‘girl’ (sc.sg *nan*) and *nir* is its plural).

It could be supposed that the forms seen in Luo, Anywa, Pāri and Acholi with a stem-final consonant /r/ for the singular possessive forms of the 1st and 2nd pers. sg., the stem-final consonant /n/ for the singular possessive forms of the 3rd pers. sg. in all the languages and the plural forms with stem-final consonant /g/, are all remnants of old possessive morphemes. Furthermore, considering the points of articulation, the stem-final consonants /r/ and /n/ in the singular forms are alveolar, whereas /g/ in the plural is a velar. This seems to be another reflex of *N/*K alternation, on which was based the old system of formation of the possessive forms, and which has got probably lost diachronically, leaving its remnants in possessive forms of kinship terms.

The Luo plural form for ‘son’ is characterised by the prefix /ya-/. This prefix doesn’t appear in the corresponding forms of any of the analysed languages. According to Tucker (1994:136f) this prefix is an alternative to the prefix /ɔ-/, even though it has a more general implication (e.g. /yáké`na/ ‘Kenya people’, /yábá`r/ ‘inland people’, /yágé`r/ ‘people of Ger clan’).

4.6.3 Colours and names for cattle

Western Nilotic languages have rich inventories of colour terms, which are mainly used to differentiate livestock, especially cattle. These terms don't involve only basic colours, but also shades and combinations of colours. Furthermore they are sex-indicating, having a different form if referred to a male or to a female. Storch (2005:428) defines this phenomenon as 'visual language', recognising colour as the dominant feature in the hierarchy of senses. In some languages colour terms are almost exclusively referred to cattle (ibid. 429), but in other cases they may have a more extended field of application. Atoh (2001:68ff) distinguishes also semantical sub-domains of the main terms in Luo, which can point to particular shades (e.g. /ratenj/ 'blackness of darkness', /ratenj ti/ 'black charcoal'), to a specific sex (e.g. /dicɔl/ 'black, dark' (f.) (<*nyako ma dichol* 'a dark girl')), or to increase the degree of vagueness (e.g. /alum alum/ 'greenish' (from /ralum/ 'green')). The last example shows how the morphological process of reduplication can be used to express this kind of variation from the original meaning in Luo.

In the following table are listed the main colours in Luo in their male and female forms (Okoth-Okombo 1982:46; Tucker 1994:252f):

<u>Male</u>		<u>Female</u>		<u>Colour</u>
<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>	
/ratenj/	/rate'ngê/	/dicɔl/	/dicɔndê/	<i>black</i>
/racar/	/racé'rê/	/dibô/	/dibóyê/	<i>white</i>
/rabuor/	/rabúorê/	/dibuoro/	/dibúócê/	<i>brown</i>
/rapendá/	/rapendá/	/ɔpé'ndá/	/ɔpé'ndá/	<i>fawn</i>

Generally in Luo the prefix /ra-/ is used for male forms or for ones which do not distinguish sex. The female forms usually have the prefix /dɪ-/ , /a-/ , or /ɔ-/ . However, there can be exceptions which don't follow this rule. The table on the following page contains a list of colour terms for cattle in Dinka (Nebel 1948:51). This language has one of the most regular structures concerning prefixation: *ma-* almost always indicates male cattle (*mi-* is the prefix for the male plural), whereas the female forms are formed with the prefix *a-* or they are unmarked (ibid. 50).

<u>Male</u>		<u>Female</u>		<u>Colour</u>
<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>	
mabior	mibior	yar	yoor	<i>white</i>
macar	micor	acol	acul	<i>black</i>
malual	miluet	aluel	aluel	<i>red</i>
mayen	miyen	ayen	ayen	<i>yellow</i>
malou	milot	lou	lot	<i>ash-grey</i>
mabok	mibuok	bok	buok	<i>reddish-grey (bok 'spitting viper')</i>
malit	miliet	lit	liet	<i>silver-grey (lit 'hawk')</i>
manjar	miyor	ayor	ayoor	<i>black with white spots (yor 'storm clouds')</i>
mabil	mibiel	bil	biel	<i>black with white flanks (bil 'to lick')</i>
magak	migek	gak	gek	<i>black with white neck (gak 'crow')</i>
makuei	mikuett	kuei	kuett	<i>black (dark) with white head (kuei 'fishing eagle')</i>
majok	miyook	ajok	ajook	<i>black with white chest</i>
maker	miker	aker	akeer	<i>white with black flanks</i>
marial	miriet	rial	riet	<i>white with black spots (rial 'to shine')</i>
makol	mikol	akol	akool	<i>red with white spots (akol 'sun')</i>
mayom	miyoom	yom	yoom	<i>white headed</i>
mapiel	miniel	niel	nieel	<i>white and red (niel 'python')</i>
madiy	midiiy	diy	diiy	<i>red with white spots (diy 'a kind of fish')</i>
marik	miriek	arik	ariék	<i>grey and white (arik 'grey lizard')</i>
matian	mitiön	atiön	atiëen	<i>dark brown (tian 'tiang')</i>
maakur	mikuor	akuur	akuor	<i>with spot around the eyes (kurpiel 'pigeon')</i>
matæem	mitem	tëm	tæem	<i>red around back and belly (tem 'to cut through')</i>
makuac	mikuec	akuac	akuec	<i>spotted (kuac 'leopard')</i>
mapan	minien	nan	næn	<i>streaked (nan 'crocodile')</i>
marol	mirool	rol	rool	<i>white and black (rol 'marabout')</i>
acoot	acot	acoot	acot	<i>hornless</i>
matuon	mituon	tuon	ton	<i>round spots around the eyes (ton 'eggs')</i>

A further list of Dinka colour terms for cattle is provided by Storch (2005:429), taken from Trudinger (1944) ⁴⁰. These terms partially vary from the ones recorded by Nebel (1948), because they are related to different dialectal forms. The examples by Nebel (1948) are used in the Rek-Malual dialect, whereas the ones by Trudinger (1944) are from northern Dinka (Clutton 1949:261). The following table shows the different terms used by the two authors concerning basic colours:

<u>Male</u>		<u>Female</u>		<u>Colour</u>	<u>Source</u>
<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>		
mabior	mibior	yar	yoor	<i>white</i>	Nebel (1948)
miakuur	mioorakuur	akuur	akuur	<i>white</i>	Trudinger (1944)
macar	micor	acol	acul	<i>black</i>	Nebel (1948)
macaar	mioorcöör	acol	acul	<i>black</i>	Trudinger (1944)
malual	miluet	aluël	aluel	<i>red</i>	Nebel (1948)
malual	mioorluet	aluëel	aluel	<i>bay</i>	Trudinger (1944)
mialual	mioorluel	alual	aluet	<i>darkish bay</i>	Trudinger (1944)
mayen	miyen	ayen	ayen	<i>yellow</i>	Nebel (1948)
mayän	miooryien	ayän	ayien	<i>yellow</i>	Trudinger (1944)

One of the main differences in the two sets of terms is the prefix for the male plural. In Nebel (1948) this is represented by the short prefix *mi-*, whereas in Trudinger (1944) the word *mioor* ‘bulls’ appears in its full length. It can be assumed that the prefix *mi-* is a contraction of the full term, but the singular prefix *ma-* cannot be referred directly to the word *muor* ‘bull’ (sg.) (Nebel 1948:50; Storch 2005:431). A further difference is in the use of the prefix *mi-* in the singular male form for terms subject to double-prefixation (e.g. *mi-a-kuur*, *mi-a-lual*) in Trudinger (1944), instead of *ma-* (cf. *ma-a-kur* (Nebel 1948:51)). This last example also shows a difference in the meaning: in Trudinger (1944) *mi-a-kuur* refers to ‘white’ colour, whereas in Nebel (1948) *ma-a-kur* means ‘with spot around the eyes’. Furthermore, it seems that double prefixation is used for shades of a certain colour (cf. *ma-lual* ‘bay’ – *mi-a-lual* ‘darkish bay’).

⁴⁰ Trudinger, R. 1944. *English-Dinka dictionary*. 2 Vols. Unpunl. ms., SUM Lalyo (Storch 2005:446)

The examples by Nebel (1948) also report the origin of many of the listed terms. By prefixation they assume a new meaning referred to the colour of cattle, recalling prominent characteristics denoting the original unmarked term, usually an animal (e.g. *makuac* ‘spotted’ --> *kuac* ‘leopard’). This process, already seen for Luo in 3.3.3, happens in all the analysed languages (cf. Anywa /kwàʃ/, (pl.) /kwáʌʃné/ ‘black with white spots all over’ (Reh 1996:161); Luo /ralum/ ‘green’ --> /lum/ ‘grass’ (Atoh 2001:67)).

In some languages the prefixes to indicate sex in livestock may be various and not regular. This is the case of Anywa. See the examples below (Reh 1996:161f):

<u>Bulls</u>		<u>Cows</u>		<u>Colour</u>
<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>	
/òcàar/	/òcàarrì/	/dìbǒw/	/dìbówwí/	<i>white</i>
/òláal/	/òlàalli/	/dìláaró/	/dìlàar(è)/	<i>red</i>
/òcérí/	/òcèr/	/dìcǒl/	/dìcǒllí/	<i>black</i>
/òbùur/	/òbùur(ri)/	/dìbúuró/	/dìbùur(ri)/	<i>light brown</i>
/ōgìirā/	/ōgìiré/	/āgìirā/	/āgìiré/	<i>dark brown</i>
ōkàGGá/	/ōkàGGé/	/ākàGGá/	/ākàGGé/	<i>red with white line on back</i>
/ōjāaG/		/ājāaG/		<i>red with white line on side</i>
/ōlìnl/	/ōlìllì/	/ālìnl/	/ālèllé/	<i>black with white spots on side</i>
/ōbálá/	/ōbàl(li)/	/dìbóoró/	/dìbòor/	<i>black or red with white spot on forehead</i>
/ōdóoló/	/ōdòól/	/ādóoló/	/ādòól/	<i>with white tail</i>
/cùoD/	/còoDé/	/ācúoD/	/ācúoDDì/	<i>without horns</i>
	/lòul/, (pl) /lòullì/			
/kwàʃ/, (pl) /kwáʌʃné/ (cf. /kwàʃ/ ‘leopard’)				<i>black with white spots all over</i>

<u>He-goats</u>		<u>She-goats</u>		<u>Colour</u>
<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>	
/dìcàar/	/dicàarri/	/ōbōw/	/ōbówwí/	<i>white</i>
		/ōlàaró/	/ōláaré/	<i>red</i>
/dìcérí/	/dicéré/	/ōcōl/	/ōcólí/	<i>black</i>
/dìlín/	/dìlínli/	/ālín/	/ālèllé/	<i>black with white spots on side</i>
/cīkwáŋ/	/cīkwáci/	/ākwáŋ/	/ākwáci/	<i>black with white spots all over</i>
/dipòol/	/dipòoli/	/āpòol/	/āpòolí/	<i>black with white and brown spots</i>

In Anywa the male prefix for cattle is in the most cases /o-/, whereas female terms have either the prefix /dɪ-/ or the prefix /a-/. In the second table with terms for goats it can be seen that the prefix /dɪ-/ is now used to indicate male goats, whereas the male prefix for bulls /o-/ referred to goats indicates females. The prefix /a-/ is a female prefix also for goats. The prefix /cɪ-/ is found more rarely and its function is also not clear. Apart from the word /cīkwáŋ/ mentioned in the table above and denoting a male, this prefix can be found also in /cīlwáal/ (sg.), /cīlwáalli/ (pl.) ‘red sheep, female’ (Reh 1996:161), in this case a female form.

Not only the prefixes differentiate male from female livestock, but there are some changes in the stems as well. These involve a change of the quality of the vowel, in particular its sound and its length, and a change in some consonants. Liquids alternate often both in Anywa and in Dinka, whereas in Anywa also a change between the liquid /r/ and the semivowel /w/ is notable. The following examples for ‘red’ livestock in Anywa will show how change of prefix and in the stem can alterate the meaning of the term:

<u>Singular</u>	<u>Plural</u>	<u>Meaning</u>
/òláal/	/òlàalli/	<i>red bull</i>
/dìláaró/	/dìlàar(è)/	<i>red cow</i>
/ōlàaró/	/ōláaré/	<i>red she-goat</i>
/cīlwáal/	/cīlwáalli/	<i>red sheep, female</i>

The few available examples from Pāri show a similar behaviour as in Anywa. In this language the prefix *u-* appears in terms for male cattle, whereas the prefixes *a-* and *li-* are used for cows. Male sheeps and goats have a double prefix, *a-* followed by *-ci-*. The prefix *u-*,

used to indicate male cattle, is found in a term for female sheeps. See the following examples (Simeoni 1978:25):

<u>Male</u>	<u>Female</u>	<u>Meaning</u>
<i>ulwal</i>	<i>lilondo</i>	<i>red or brown bull / cow</i>
<i>upul</i>	<i>agor</i>	<i>spotted black bull / cow</i>
<i>acikwac</i>	<i>akwac</i>	<i>white and black goat</i>
<i>aciɿwok</i>	<i>uɿwoŋ</i>	<i>sheep with a white spotted neck</i>

The terms to distinguish male from female lions in Pāri are also interesting. The general term for ‘lion’ is *ɲuu* (cf. Anywa /ɲùu/ (sg.), /ɲùuwè/ (pl.) (Reh 1999:110); Shilluk /ɲù/ (sg.), /ɲūwī/ (pl.) (Westermann 1912:299)). The sex-indicating terms are *limor* ‘lion, male’ and *nibworo* ‘lioness’. Both these terms are prefixed: in the male form is used the prefix *li-*, which has been already found in a term for cows, whereas the female form is composed by the prefix *ni-*, which is used as a diminutive or in proper names (both male and female), and the stem *bworo*. This stem on one side is connected with a yellowish, light brown colour (cf. Anywa /dibùorò/ ‘yellow or ochre coloured cow’ (Reh 1999:21); Luo /rabuor/ ‘light brown, khaki, buff coloured’ (Odaga 2005:293)), but on the other hand it is the stem found in terms for ‘lion’ in Western Nilotic languages which doesn’t have a term related to *ɲuu* (cf. Acholi /làbwòòr/ (Blackings 2009:65); Luo /sibuor/ (Odaga 2005:315); Belanda Bor /dúbóór/, Labwor /kibwòr/ (Storch 2005:342)).

In some cases specific terms can be applied only to a particular animal or object. The following example for ‘reddish-brown’ in Luo will explain this (Tucker 1994:253):

<u>Singular</u>	<u>Plural</u>	<u>Meaning</u>
/ɖiaŋ mákwá r/	/ɖok mákwá r/	<i>reddish brown cattle (m)</i>
/gweno máraɖáyî/	/gwén máraɖáyî/	<i>reddish brown fowl (m)</i>
/ɲat másílwa`l/	/ɲi másílwándê/	<i>reddish brown person (m)</i> ⁴¹
/ɖiaŋ málá`ndɔ/	/ɖok malé`ndê/	<i>reddish brown cattle (f)</i>
/gweno málá`ndɔ/	/gwén malé`ndê/	<i>reddish brown fowl (f)</i>
/ɲat málá`ndɔ/	/ɲi malé`ndê/	<i>reddish brown person (f)</i> ⁴¹

⁴¹ Said of light-coloured person

The prefix /ma-/ in Luo is a relative prefix (the non prefixed form /ḍiaŋ kwà`r/ would have a predicative meaning: ‘the male cattle is reddish-brown’). From the examples above it is possible to see, that the male forms use different terms depending on the living being the colour is referred to, whereas in the female the same term is used in all the cases. The terms /kwar/ and /raḡáyî/ are specific terms referred only to cattle and fowl respectively, and they are not related to the plural form. The term /si-lwal/ on the other hand is the counterpart of /lando/. This pair can be found also in other languages, eventually with different prefixes and different connotation. See the following examples ⁴²:

<u>Male</u>	<u>Female</u>	<u>Neutral</u>	<u>Language</u>	<u>Meaning</u>
	/cilwáal/		Anywa	<i>red sheep, female</i>
/òláal/	/diláaró/		Anywa	<i>red bull / cow</i>
	/òlàaró/		Anywa	<i>red she-goat; lioness</i>
/lwàal/			Anywa	<i>red male dog</i>
		/ālwáal/	Anywa	<i>red monkey (Mangabey)</i>
		/lwáalló/	Anywa	<i>red maize</i>
		/ṇiláal/	Anywa	<i>child (lit. ‘young of redness’)</i>
<i>ulwal</i>	<i>lilondo</i>		Päri	<i>red or brown bull / cow</i>
<i>cilwal</i>	<i>ṇilando</i>		Päri	<i>red he-dog / bitch</i>
/malual/	/aluəl/		Dinka	<i>red bull / cow</i>
		/lwàli/	Shilluk	<i>general name for red dura</i>
		/lwala/	Luo	<i>red loamy soil</i>
		/lwaàl/	Acholi	<i>red soil</i>

All the forms in the previous table taken from different Western Nilotic languages suggest that they have the same origin. It could be supposed that they are derived from a same lexeme */l^wal/, as also suggested by Reh (1996:147). According to her the original form should be */lual/, but I prefer to consider the vowel of the stem as a simple /a/, and not a diphthong, assuming a labialisation of the first consonant, which in some derived forms may disappear. Apart from sound changes in vowels, which are quite common in noun derivation in Western Nilotic languages, two main changes in consonants can be noted. Among the

⁴² Examples from: Odaga (2005) for Luo, Westermann (1912) for Shilluk, Reh (1996) for Anywa, Simeoni (1978) for Päri, Crazzarola (1955) for Acholi, Nebel (1948) for Dinka

Anywa examples in two of them the root-final consonant is /r/. A change from /l/ to /r/ in nominal derivation in Anywa is quite rare, but occurring in same cases, e.g. /bùul/ ‘drum’ --> /búrí/ (pl.) (Reh 1999:12). The other change in consonants occurs in Luo and Pāri, where the root-final /l/ of the male form becomes an alveolar nasal compound in the female one. This change is otherwise very common in both the languages.

A particular system of classification of colour terms is found in Shilluk, where these are not only distinguished if referred to bulls or cows, but mainly if used in domains of the socio-economic lives of men or women. The distinction between male and female cattle is a subcategory in the domain of men’s activities, whereas the feminine set of colour terms is referred to products of activities done by women, in particular beads and beadwork, which represent one of the most important cultural spheres in the Shilluk society (Storch 2005:431f). The following table shows a list of terms for this distinction:

<u>Women’s colours</u>	<u>Men’s colours</u>		<u>Colour</u>
	<u>Male</u>	<u>Female</u>	
/tār/		/óbàw/	<i>white</i>
/óbáŋɿ/, /ówáw/ (<i>light</i>), /àcwícwìl/ (<i>dark</i>)		/ówáw/	<i>blue</i>
/dítan/, /lóɕ/	/dítan/	/ótáàŋò/	<i>black</i>
/wáar/, /rɛɛrò/	/dídígò/	/ólàal/	<i>red</i>
/bággà/	/díbwɔrò/	/óbwɔrò/	<i>yellow</i>
/ómáàrò/, /màr/	/dítwòl/	/ótwòlò/	<i>green</i>

On a first sight a clear symmetry in men’s colours (which are the ones used for cattle) can be observed, with a prefix /di-/ for bulls and /o-/ for cows. However, the presence of colours like ‘blue’ and ‘green’ in this category is rather doubtful. Westermann (1912:107f) presents a further list of terms for cattle and beads, which are however quite different from the ones quoted by Storch (2005). In Westermann (1912) the prefix /di-/ never appears; instead of it there is a prefix with the consonant /t/, which can be followed by different vowels (it will be represented as /tV-/). In his list the prefixes /tV-/ , /o-/ and /ja-/ are all used for cows. There are no terms for bulls, whereas the few terms for oxen have the prefixes /wá-/ (probably a short form of /waɿ/ ‘ox’) and /o-/. See the following examples:

/takyèc/	a cow with white flanks, the rest being black
/táɥwól/	a cow of bay colour (cf. /dítwól/ ‘green, men’s colour, male’ (Storch 2005); /otɥwól/ ‘blue colour’ (Westermann 1912:291); Luo <i>raɥuol</i> ‘greenish, gray, greenish black’ (Odaga2005: 301))
/tédígò/	a red-brown (bay) cow (cf. /dídígò/ ‘red, men’s colour, male’ (Storch 2005))
/teduk/	a grey cow
/tètàn/	a black cow (cf. /dí tán/ ‘black, men’s colour, male’ (Storch 2005); /dí tòn/ ‘black, women’s colour’ (Storch 2005); Luo /rateɲ/ ‘black, male’ (Odaga 2005:300; Tucker 1994:252f))
/kɛɛn ówéèɖɔ/	blue beads (cf. /ówáw/ ‘light blue, women’s colour’ (Storch 2005))
/óbóù/	white beads (cf. /óbàw/ ‘white, men’s colour, female’ (Storch 2005); Anywa /ōbōw/ ‘white she-goat’ (Reh 1996:161f); /dībōw/ ‘white cow’ (Reh 1996:161f); Luo /dibô/ ‘white, female’ (Tucker 1994:252))
/ɥèɛrò/	red beads (cf. /rɛɛrò/ ‘red, women’s colour’ (Storch 2005))
/târ/, /táâr/	white (cf. /târ/ ‘white, women’s color’ (Storch 2005); Pāri <i>tar</i> ‘white’ (Simeoni 1978:44); Luo <i>tar</i> ‘white’ (Odaga 2005:330), < <i>lak tar ji dhi adhiya</i> > ‘teeth are white people just go’, Luo saying (Odaga 1995: 44))
/lóòc/	black (/tyɛɲ loojɔ/ ‘black people’) --> /loojɔ/ ‘to be black’ (Westermann 1912:267); (cf. /lóɔc/ ‘black, women’s colour’ (Storch 2005))

The differences in the terms proposed by Storch (2005) and Westermann (1912) can be due to various regional forms, as already seen in other cases in this work. Many terms for colours appear in similar forms in several Western Nilotic languages, however their meaning may be slightly different, referred to particular shades of colour, or used only in specific domains. The prefixed forms often differ from language to language, and even in the same language a prefix can be used for some animals of a specific sex and for other animals of the opposite one. The available sources are also limited and sometimes, if regarding the same language, they don’t correspond, for the reasons mentioned above. The use and the origin of colour terms in Western Nilotic languages is surely a field which wasn’t analysed in an exhaustive way yet and which would need further research.

5. Conclusio

The aim of this work was to recognise and describe the main features of the nominal morphology in Luo and the morphonemical processes applying in the formation of its modified forms. The results were then compared with the corresponding ones in Shilluk, Anywa, Pāri and Acholi, all languages belonging to the same branch of Western Nilotic languages.

It was first recognised that these languages developed different consonant inventories: nasal compounds can be found only in Luo and in Pāri, whereas fricatives, and in particular the voiceless alveolar [s], can be found only in Luo, probably acquired from some substratum or influence by a neighbouring language. Western Nilotic languages often have a set of dental consonants, the plosives [t̪] and [d̪] and the nasal [ɲ], which form consonant harmony in contrast with the corresponding alveolar stops. This is the case of Shilluk, Pāri and Anywa, whereas in Acholi dental stops are completely absent. In Luo only dental plosives can be found, and the alveolar nasal [n] harmonises with dental and alveolar stops as well. Gemination of root-final consonants occurs in languages without nasal compounds, except in Pāri, where both processes can be observed.

In Luo, Shilluk, Anywa and Pāri the nouns follow particular patterns for the formation of plural forms and of the status constructus, which is mainly used for possessives. In Acholi this process is absent, with exception for a few irregular forms, amongst others in kinship terms. The most common process, occurring in Anywa and Shilluk, is the nasalisation of plosives to the corresponding counterpart at the same point of articulation in formation of the status constructus singular. In Anywa also an opposite process (plosivisation of nasals) can be observed in the formation of the status constructus plural. In Luo there is only a change from nasals to the corresponding nasal compounds in the formation of all the modified forms, as well as a change in plosives between voiced and unvoiced counterparts. Root-final liquids and semivowels are also subject to sound change, however they don't follow strict pattern and they are different in every analysed language.

Based on the patterns of formation of the plural and of the status constructus by Reh (1996) for Anywa it was attempted to recognise if these could be applied also to other

languages. Although some similarities to Shilluk were observed, the general behaviour of the nouns in the different languages varies from these patterns. More important is our deduction, that in all the languages there are nouns which have an unmarked form in the plural and a marked one in their singular. It was then chosen to analyse the nouns according to a morphological number system in combination with the grammatical number system, resulting in four different possible categories of nouns: (a) singular (unmarked singular form), (b) collective (unmarked plural form), (c) singulative (marked singular form), and (d) plural (marked). All the analysed languages have nouns which can be classified according to these categories, although this phenomenon is more present in Anywa and Shilluk than in other languages.

It has been also observed that some of the analysed languages have intimate (or inalienable) and non-intimate (or alienable) forms of possessive constructions. An intimate form indicates a degree of possession between two physically or conceptually non-separable elements, e.g. a person's body parts, 'a fish of the river', 'a star of the sky'. It was seen that in Acholi the intimate connotation is expressed by a sound change in the nomen regens (when this is possible), and the absence of the possessive conjunction /pà/. In Anywa on the other hand the forms which are less subject to sound modification of the stem are the intimate ones. According to Tucker (1994) in Luo the most modified forms are usually the intimate ones, but it has been seen that there are many exceptions and it is not possible to define a common rule. For the other languages there are unfortunately no data to verify this aspect, but most probably they also have similar forms.

The analysis of agentive nouns have shown that these mostly originate from verbal nouns and they may have two forms which distinguish an occasional from a habitual doer. In Western Nilotic languages the verb usually has two different forms: an 'applicative' and a 'qualitative' one, or using the terminology by Reh (1996) respectively 'bivalent transitive' and 'related detransitive' forms. The first category of verbs is used in a transitive way and always involves an object (e.g. Luo /ácámó riŋo/ 'I am eating meat'), whereas the second one "detransitive" implies a general meaning without referring to any particular object (eg. Luo /áciémò/ 'I am eating'). Agentive nouns in Anywa are formed from qualitative verbs and the distinction between occasional and habitual doer is expressed by different prefixes. In other cases, as for example in Luo, agentive nouns can be formed with both the forms of the verb or with the verbal noun, depending on the connotation of the doer.

In Western Nilotic languages many nouns are prefixed. In this work the main focus has been put on the prefixes which are still productive in the various languages, in particular agentive and diminutive ones, prefixes indicating 'nationality' and the ones used to differentiate between sexes in proper names. It was seen that although in every language these prefixes may have a different form, their behaviour is very similar. Prefixed nouns form their plural forms by other prefixes. A change of sound may also occur, but there are differences among the languages and also between some sound change variants of the same language.

In all the languages under examination there are irregular nouns which don't follow the common patterns of formation of the plural and of the status constructus. Kinship terms represent a meaningful set of such substantives. It has been observed, that kinship terms have very similar forms in all the languages, probably a sign, that such nouns are more resistant to diachronical changes. In particular it has been found out that in all languages some of these terms use the possessive suffix /-u/ to express the 2nd person singular possessor, instead of the common suffix /-i/. A further research has shown, that such a suffix is regularly used in Dinka and in Nuer, two languages which are also related to the ones analysed in this work, although they are part of a different branch of the Western Nilotic languages. It has been also observed that in the possessive forms of kinship terms there are elements reflecting *N/*K alternation between the singular and the plural, probably remnants of an old system based on this process, which has been lost diachronically.

The last part of this work has involved the analysis of sex-indicating terms, in particular names for male and female livestock and terms for colours. Such terms are found in every language, and they are distinguished by prefixes, often accompanied by a sound change in the stem. Also in this case various sets of prefixes are found and only in a few cases there is correspondence among the various languages. These prefixes often don't seem to have regular patterns. A prefix may be used in some cases to indicate male livestock, and in other ones female. Some prefixes are also used to create new nouns with a different meaning, but recalling a particular feature of the original unprefixated nouns.

6. Sources

6.1 Source literature

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6.2 Audio-visual sources

- All Domestic and Wild Animals Luo Names. URL: <https://www.youtube.com/watch?v=KeH-v8g0q-4> (retrieved: 09.03.2022)

7. Appendix

7.1. Luo nouns formed with the descriptive prefix /ra-/

⟨rabala⟩	a controversial person, rebel, who goes contrary to the norms, uncooperative, disobedient, a ringleader --» ⟨balo⟩ disagree
⟨rabam⟩	cripple, one who has not got full use of his legs who walks with a limp, lame person
⟨rabara⟩	a tall person
⟨rabare⟩	a rebel, uncontrolled, difficult, uncooperative person, rogue
⟨rabondo⟩	a bald person, cf. ⟨rabala⟩
⟨racham⟩	left handed person
⟨rachich⟩	right handed person
⟨rachiero⟩	a person with a cataract in the eyes, cf. ⟨chiero⟩
⟨radeny⟩	a person with a curved back
⟨radhoho⟩	leper (also ⟨jaradhoho⟩)
⟨radin⟩	deaf person, dull with low intelligence; a person with poor hearing and understanding
⟨rading'⟩	one whose cheeks seem as if they are swollen under the ears, c.f. ⟨ding'⟩
⟨radoho⟩	a polygamist, cf. ⟨doho⟩, ⟨jadoho⟩
⟨radol⟩	a stooping person cf. ⟨rakula⟩
⟨ragama⟩	a hefty person, tall and big bodied
⟨raguka⟩	a stooping person, round shouldered
⟨rahoyi⟩	noisy, ill mannered person, rogue, ignorant
⟨rahura⟩	half-wit, semi retarded person
⟨rakowno⟩	one with no waist line, with large girth, shapelessness
⟨rakula⟩	round shouldered man cf. ⟨raguka⟩
⟨ralala⟩	obstinate, difficult, stubborn
⟨ralingo⟩	a person with no sense of humour, taciturn cf. ⟨rajuonda⟩
⟨ralong'o⟩	one affected with hydrocele cf. ⟨long'o⟩
⟨raluar⟩	grey haired
⟨ramangla⟩	a male who cannot father a child, although is sexually active, sterilised
⟨rambala⟩	a person whose body is full of scars; an infamous person

⟨ <i>rambanya</i> ⟩	one who has a gap between the two front teeth of upper jaw
⟨ <i>rambara</i> ⟩	a person with black scorched marks from sitting too near to fire
⟨ <i>rambiko</i> ⟩	one whose hands and feet have been eaten away by leprosy
⟨ <i>raminda</i> ⟩	a difficult person, argumentative, and hard to work with, unreliable person, dishonest
⟨ <i>ramondo</i> ⟩	a person with big navel
⟨ <i>ramuto</i> ⟩	a large well built person
⟨ <i>ramwamba</i> ⟩	a fat person, huge person
⟨ <i>randere</i> ⟩	a slim animal or a person small in stature
⟨ <i>randiga</i> ⟩	a tall, hefty person; a cow with large long horns
⟨ <i>rangoro</i> ⟩	one who is coward, cf. ⟨ <i>ngoro</i> ⟩
⟨ <i>rang'ol</i> ⟩	lame person, cripple, pl. ⟨ <i>rang'onde</i> ⟩, cf. ⟨ <i>ng'olo</i> ⟩, ⟨ <i>ng'ol</i> ⟩
⟨ <i>rang'ongo</i> ⟩	big, huge, hefty, stout
⟨ <i>ranjago</i> ⟩	tall man, bigger than the ordinary person
⟨ <i>ranyange</i> ⟩	one who has been circumcised (also ⟨ <i>ranyangu</i> ⟩)
⟨ <i>ranywar</i> ⟩	rough skinned, not a good looking person, ugly
⟨ <i>rapil</i> ⟩	one with fat or swollen cheeks
⟨ <i>rapith</i> ⟩	a wealthy person
⟨ <i>rapudo</i> ⟩	one who is thin and slender
⟨ <i>raracha</i> ⟩	ugly, unpleasant, unrefined
⟨ <i>rarori</i> ⟩	a giant: ⟨ <i>rarori ma siroth</i> ⟩ – a huge man, big built, against whom no one would dare to fight, e.g. Goliath
⟨ <i>rarucha</i> ⟩	ugly, lacking in confidence, refinement, dignity and personality
⟨ <i>rarudno</i> ⟩	ugly, not good looking, with dull countenance
⟨ <i>raruoch</i> ⟩	pale, sickly in appearance
⟨ <i>rasambo</i> ⟩	bad luck flawed person with serious vices or flaws, a wet blanket, with hidden weakness; ⟨ <i>jaber rasambo</i> ⟩ – even the beautiful ones have flaws, vices
⟨ <i>rasepe</i> ⟩	a person possessed with <i>sepe</i> spirits and can speak in tongues; or one who often gets possessed with believes in <i>sepe</i> spirits, cf. ⟨ <i>jajuogi</i> ⟩
⟨ <i>rasihingwa</i> ⟩	a bit abnormal, dull, rude halfwit, awkward and uncouth
⟨ <i>rasira</i> ⟩	a temperamental person, hard to please, with no sense of humour
⟨ <i>ratego</i> ⟩	powerful, strong, also said of someone with stamina and perseverance, hard working

⟨ <i>рати</i> ⟩	very old person, very old animal or a thing
⟨ <i>ратила</i> ⟩	a thin small bodied person, slim person
⟨ <i>рати́ро</i> ⟩	honest, forthright, straightforward
⟨ <i>раура</i> ⟩	stupid unintelligent, halfwit, mad simpleton
⟨ <i>rawach</i> ⟩	talkative person, argumentative, controversial
⟨ <i>rawar</i> ⟩	redeemer, liberator, deliverer, cf. ⟨ <i>jawar</i> ⟩
⟨ <i>rawera</i> ⟩	youth, lad, maiden; (pl.) ⟨ <i>rawere</i> ⟩
⟨ <i>rawere</i> ⟩	youths, teenagers
⟨ <i>rawuok</i> ⟩	a person who has no teeth on the upper jaw, cf. ⟨ <i>rahuok</i> ⟩, ⟨ <i>rafuok</i> ⟩
⟨ <i>rayamo</i> ⟩	quarrelsome, noisy, unpleasant, disagreeable fellow, a bad luck person
⟨ <i>raywer</i> ⟩	big legged person
⟨ <i>rochore</i> ⟩	said of an animal/couple which always miscarry or which can't have more children after having had a child or children before, cause infertility; cf. ⟨ <i>rochruok</i> ⟩

Source: Odaga (2005:292ff)

7.2 Luo nouns formed with the descriptive prefix /mi-/

⟨ <i>miaha</i> ⟩	spouse, bride, (pl.) ⟨ <i>miehini</i> ⟩
⟨ <i>micheri</i> ⟩	one who steals occasionally (not a habitual thief)
⟨ <i>Michira</i> ⟩	having no appetite, especially after having eaten well during the previous meal
⟨ <i>Micholo</i> ⟩	midwife, cf. ⟨ <i>jacholo</i> ⟩, ⟨ <i>cholo</i> ⟩
⟨ <i>miderma</i> ⟩	an only child, begotten by his/her parents
⟨ <i>midhiyo</i> ⟩	a climber with prickles
⟨ <i>miganga</i> ⟩	adulterous; cheat, imposter, thief, conducts which go against societal norms, (pl.) ⟨ <i>migengini</i> ⟩, cf. ⟨ <i>migodha</i> ⟩
⟨ <i>migele</i> ⟩	thief, a deceitful person, cf. ⟨ <i>miganga</i> ⟩
⟨ <i>migodha</i> ⟩	of lose moral, pervert, rapist, cf. ⟨ <i>ong'ora</i> ⟩, ⟨ <i>miganga</i> ⟩
⟨ <i>migogo</i> ⟩	married daughter, (pl.) ⟨ <i>wagogni</i> ⟩, derogatory term * ⟨ <i>wagogni</i> ⟩ (n.) married daughters are called ⟨ <i>wagogni</i> ⟩ or ⟨ <i>wagoke</i> ⟩ by their paternal relatives, (sing.) ⟨ <i>mugogo</i> ⟩/⟨ <i>mgogo</i> ⟩

⟨migosi⟩	mister, well behaved respected person, (pl.) ⟨wagosini⟩
⟨migumba⟩	barren, an old woman who never had a child
⟨migundho⟩	a disgruntled person
⟨migundia⟩	tight fisted, avaricious, cf. ⟨jamigundia⟩
⟨mihia⟩	child, baby * ⟨wahiya⟩ (n.) children, (sg.) ⟨muhiya⟩, ⟨mhiya⟩
⟨mikayi⟩	first wife of a polygamist
⟨mikola⟩	one who gets e.g. fish when others fail to catch any, also proper name
⟨milale⟩	said of a child just born, but not yet taken outside confinement
⟨milore⟩	insolent, show off, jester
⟨min⟩	mother, (pl.) ⟨mine⟩
⟨mirana⟩	stupid, half wit, weakling, cf. ⟨orana⟩
⟨misiala⟩	fiancée not yet made official
⟨misumba⟩	bachelor, slave * ⟨wasumba⟩ slaves, (sg.) ⟨musumba⟩
⟨miyo⟩	motherhood
⟨miyumo⟩	a humble person
⟨miyung⟩	said of women; zealous, humble and hard working
⟨wakore⟩	people who come together for a purpose, gather together
⟨wasumba⟩	slaves, (sg.) ⟨musumba⟩

Source: Odaga (2005:205ff)