A Grammar of the Lopit Language

Jonathan Moodie

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School and Languages and Linguistics
THE UNIVERSITY OF MELBOURNE

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Abstract

This thesis is the first comprehensive description of the grammar of Lopit, an Eastern Nilotic language traditionally spoken in South Sudan. It is based on extensive fieldwork with Lopit speakers living in Melbourne and, to a lesser extent, in the Kakuma Refugee Camp in Kenya. It focuses on the Dorik variety of the language. Following introductory discussion, analyses are presented of Lopit phonology; word classes; and morphology of the noun phrase and the verb. This is then followed by analyses of verbal tense, aspect and mood; basic sentence structure; the expression of property concepts and adverbial notions; and clause combining constructions.

This study shows that, in many ways, Lopit is a typical non-Bari Eastern Nilotic language. Lopit has a nine-vowel system with an Advanced Tongue Root distinction, and tones used for both lexical and grammatical distinctions. Number marking follows the tripartite system of singulative, plurative and replacement marking, and property concepts are mainly expressed with stative verbs in relative clause constructions. As is typical of Eastern Nilotic languages, Lopit has two classes of verbs and bound pronominal marking on verbs. It is a verb-initial language and the unmarked word order is VSO. Lopit has a marked nominative case system, with nominative and absolutive case distinguished by tone.

Lopit does, however, exhibit a number of features which are either not present or have not been identified in other Eastern Nilotic languages. These include the ‘greater singular’, where a morphologically singular noun can be used to indicate a very large number. Lopit also appears to differ from other Eastern Nilotic languages in that there is a three-way contrast in aspect: neutral, imperfective and perfective. In addition, the marking of aspect is determined by the phonotactic structure of the verb root. Lopit appears to have a larger range of modal distinctions than other Eastern Nilotic languages, including the irrealis, the potential, the conditional and the obligative. While inclusory constructions are present in other Eastern Nilotic languages, Lopit appears to be unique in that it distinguishes two kinds of inclusory constructions, one of which has a topicallyised, but not expressed, noun phrase.

The detailed description of Lopit morphological and syntactic structures presented in this thesis offers valuable insights in relation to several grammatical features which are cross-linguistically rare or under-described, while also making a significant contribution to the typological and historical understanding of Eastern Nilotic languages, and Nilo-Saharan languages more generally. As the first comprehensive grammar of Lopit, it also offers a strong foundation from which more detailed examinations of specific phenomena can proceed.
Declaration

This is to certify that

1. the thesis comprises only my own original work towards the PhD,

2. due acknowledgement has been made in the text to all other material used,

3. the thesis is fewer than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

Jonathan Moodie, September 2019
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Chapter 1  Introduction

1.1  Introduction and outline of this thesis

This thesis is a description of the grammar of Lopit, an Eastern Nilotic language traditionally spoken in the Eastern Equatoria province in South Sudan. It is focussed on the Dorik dialect, whose speakers are located in the northern part of the Lopit Mountains. This is the first comprehensive description of the grammar of this under-documented language. It is based on extensive fieldwork with Lopit speakers now living in Melbourne and, to a lesser extent, living in the Kakuma Refugee camp in Northern Kenya. It is the first modern grammar written on a language of the Lotuxo sub-group of the Eastern Nilotic languages.

There has been almost no research on Lopit until recently. Vossen collected a short wordlist (1982, p. 105) and some brief notes on the grammar (1982, pp. 213–218). Turner carried out a study of the phonology (2001) and some additional materials have emerged from workshops organized by SIL in recent years (Ladu, Nartisio, Bong, Odingo, & Gilbert, 2014b; Stirtz, 2013). A major study of the phonetics and phonology of Lopit has been carried out by Billington (2017).

In this introductory chapter, in section 1.2, I provide information on the Lopit people, including their location, population and what has been documented of their history and social structure. This is followed, in section 1.3, by a summary of the research that has been undertaken on the language, its classification and its six dialects. In the following section, 1.4, I explain the motivations of this study and describe the methodology used. In the final section of the chapter, section 1.5, I give a typological overview of the language.

The body of the thesis has a format which is commonly used in grammar writing, i.e. starting with the sounds of the language and then moving on to describe the words, phrases and clauses and how they are combined. The phonology is discussed in Chapter 2, although this is rather brief, given the comprehensive work done by Billington (2017). Chapter 3 provides an overview of the word classes and this is followed by Chapter 4 on the noun phrase. The verb in Lopit is quite complex and an overview is given in Chapter 5, followed by a description of tense, aspect and mood in Chapter 6. The structure of the basic sentence is presented in Chapter 7 and this covers word order, grammatical relations, valency and non-verbal sentences. Chapter 8 describes the various ways in which property concepts and adverbial notions are expressed in Lopit. Clause combining constructions are presented in Chapter 9 and this covers coordination, complementation and relative and adverbial clauses.
Taken together, these analyses represent a significant contribution to the documentation of an underdescribed Nilotic language.

1.2 The Lopit people

1.2.1 Location and population

The speakers of Lopit live in the Lopit Mountains, northeast of Torit in the Eastern Equatoria Province of South Sudan, as well as in diaspora communities. A map of South Sudan, including the town of Torit, is shown in Figure 1-1. The Lopit Mountains rise from an altitude of about 600 meters to over 1,900 meters at the peak of Lodio, the highest mountain in the Lopit range. Other names for the Lopit language include Lafiit, Lafit, Lafite, Lofit, Lopid and Loppit (Lewis, Simons, & Fennig, 2016). Many Lopit people also refer to the language as Lodongiye (from /dɔŋɛ/, ‘mountains’).

![Map of South Sudan showing the town of Torit](http://www.lib.utexas.edu/maps/south_sudan.html)

Figure 1-1: Map of South Sudan showing the town of Torit.

The number of Lopit speakers is estimated to be 50,000 people (Lewis et al., 2016), but no detailed data is available. Some reports indicate that the figure of 50,000 may be an overestimate (Grüb, 1992; Jurey, 1981). On the other hand, this number is regarded as an underestimate by most Lopit speakers (Turner, 2001, p. 5; and my own experience). There are around 60 villages along the Lopit mountains (Murahashi, 2013).

South Sudan has experienced civil war and great unrest. This was significant in the forty years leading to independence in 2011. However, since civil war broke out in 2013, the

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1 http://www.lib.utexas.edu/maps/south_sudan.html)
unrest has become even worse. There have been tens of thousands more deaths and the
displacement of 1.7 million people internally and 1.2 million externally (UNHCR, 2016).
Many of the Lopit (possibly several thousand people) have sought refuge in the Kakuma
refugee camp in Northern Kenya and in refugee camps in Uganda (author estimate based on
visits to Kakuma). In addition, others have migrated to other African countries (Egypt, Sudan
and Uganda) and to western countries including Canada, USA, UK and Australia. There are
about 50 Lopit speakers living in Australia, most of whom live in Melbourne.

1.2.2 History and social structure

Overall, there is little consensus on the origins of the Lopit and related peoples. There have
been a number of reports over the last hundred years that provide some limited information
on the Lopit people. Many of these are in the context of comparative linguistic research. A
study of the Otuho was undertaken by Seligman & Seligman (1932) who say that “very little
is known of the inhabitants of Mount Lopit” except that they speak a “Lotuko dialect”2.

Driberg (1932) conducted a brief study of the “Lotuko speaking tribes”. Driberg speculates
that the Lopit, Lokoya, Lango and Dongoton were not of the same origin as the Otuho
(1932, p. 603). A map showing the various language speaking groups and their locations is
given in Figure 1-2.3

Figure 1-2: Lotuxo sub-group speaking area (from Driberg (1932, p. 602))

\[\text{Figure 1-2: Lotuxo sub-group speaking area (from Driberg (1932, p. 602))}\]

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2 I use the name Otuho for the language that is also called Lotuko and Latuko, unless directly quoting a
reference. Otuho is the name used by the speakers themselves. Lotuxo refers to the language sub-group.

3 In Figure 1-2, the language of Lokoya is called Lerya. Longarim (Narim) is a Surmic language.
Muratori, who wrote a grammar of Otuho, stated that Lopit has some strong links to Bari and speculated that the Lopit may have broken away from the Bari when this latter group moved from the south-east (1938, p. xvii).

Vossen describes the history of the Lotuko speaking peoples (1982, p. 43). He states the linguistic evidence suggests that the Proto-Lotuko-Maa people split from the Proto-Teso-Turkana people between 100 and 500AD. He also says the location of the homeland of the Proto-Lotuko people is not properly known but does say that they migrated from somewhere to the north-east of their present location. However, he acknowledges that it is too difficult to piece together a plausible description of the history and interaction between the various groups amongst what he called the Lotuko peoples.

Vossen (1982, pp. 43–47) distinguishes between the plains people (Otuho) and the mountain people (Lopit, Dongotono) and notes the use of the word Donge as a term for the mountain people. The word /dɔŋɛ/ is also used by the Lopit both to describe themselves and to refer to mountains. Vossen mentions a view that, after the Otuho expanded in their present location (perhaps several hundred years ago), the Lopit and Dongotono moved east, south and west. The Lopit then moved to the Lopit mountains, which is their present location. The Lokoya had been in the Lopit mountains and were consequently displaced south- and west-wards.

Jurey (1981) visited the southern area of Lopit Mountains and stayed in the area known as Lohutok (called Logotok in his report). Although this is a Lopit speaking area, he describes the people there as part of the ‘Latuka’ (Otuho) people. He suggests that the Eastern Nilotic and the Surmic people that live in Eastern Equatoria came from Uganda and Kenya. He gathered some oral histories from the villagers and reports that Lohutok was occupied by the Otuho in the second half of the 18th century and the people came from the Didinga Hills, which are around 100km to the south-east. At that time, they were hunters and had not yet settled in villages. By the middle of the 19th century, they had become farmers and blacksmiths (1981, p. 31).

Two more recent ethnographic studies of the Otuho people have been conducted by Grüb (1992) and Simonse (1992). Although these studies describe some of the more recent movements of the various peoples in Eastern Equatoria (in the last 200 years), they provide little information on the origins of the Lopit people or their language.

Vossen’s description of the origins of the Eastern Nilotic peoples (above) is supported by reports I gathered during discussions with Lopit speakers at Kakuma in 2015. They believe that both speakers of Nilotic languages (Lopit, Otuho, Maasai, Turkana and Luo) and speakers of Surmic languages (Murle, Didinga, Tennet and Boya) originated in the Ethiopian Highlands around 1000 to 2000 years ago.
According to Jurey, the Lopit people seem always to have been sub-divided into small, rather close-knit groups of villages (1981, p. 28). These village groups see themselves as distinct from other village groups. Each village group has its own set of traditions and of political and religious leaders. In general, however, they each have a ruling generation of village leaders /mɔŋɔmjî/, literally ‘fathers of the village’; a rainmaker /xábô nà xaì/, ‘king of rain’, who is responsible for rain; and a king of the earth /xábô nà xòf/, ‘king of earth’, who is responsible for hunting, war, pests and diseases.

The Lopit are both crop and livestock farmers. The crops are mainly sorghum, millet and groundnuts. The Lopit cultivate over twenty varieties of sorghum. They keep cattle, sheep, goats and chickens. In addition to their food value, the animals (especially cattle) are a source of wealth and prestige.

1.2.3 The languages of the Lopit people

Lopit is the first language of the Lopit people. The Lopit people are also multilingual to various extents, as is typical in Africa. A number of languages are spoken nearby and are potential influences.

The language with the closest geographical relationship is Tennet (also known as Irenge). The Tennet moved into the Lopit mountains within the last 100-200 years and occupy several villages in the northeast of the mountain range. Tennet is a non-Nilotic Surmic (Eastern Sudanic) language related to Murle, Didinga and Boya (Dimmendaal, 1983a; Randal, 1998). There are up to several hundred Tennet speakers and they also speak Lopit. During the present study, I have found little influence of Tennet on Lopit.

The language with the greatest potential influence on Lopit is Otuho. Otuho is spoken by more people than Lopit according to available estimates and has perhaps 135,000 speakers (Lewis et al., 2016). It is also a language with more political and social influence. It is the language spoken in the provincial capital, Torit. It was also the language with which foreign missionaries and colonists had the most contact in the late 19th and early 20th centuries. In fact, as reported above, most of those authors who mentioned Lopit regarded it as a dialect of Otuho. A consultant for the present study said that the Otuho were the first group in the region to have contact with missionaries and other Europeans and consequently had a greater influence on how Europeans interpreted the history of the peoples and their languages. This was an outcome of the Rejaf Language Conference of 1928, where Otuho was chosen as one of the main languages for education (Abdelhay, Makoni, & Makoni, 2016, p. 353; Coates, 1985, p. 105).

A number of schools have been established in the southern end of the Lopit Mountains and they have used Otuho as the language of instruction. In addition, Lopit speakers who sought
work or education in Torit learned Otuho. Thus, many Lopit speakers are also Otuho speakers whereas the reverse is not typically the case. The linguistic evidence presented in this study shows that the two varieties have significant differences across all levels of linguistic structure. The Lopit speakers I have worked with consider them to be two separate languages.

Juba Arabic is the other major language spoken by the Lopit. This is a creole of South Sudan which draws about 80% of its lexicon from Arabic and the rest mainly from Nilotic languages, notably Bari (Manfredi, 2017; Manfredi & Petrollino, 2013). This language has become a lingua franca in South Sudan and its diaspora. Lopit speakers who move around South Sudan for employment or education will usually have learnt this language. There are quite a number of loan words from Arabic in Lopit and some of these will be mentioned in this study, particularly those which have proven useful for the purposes of investigating morphological productivity, such as in the discussion of number marking patterns in section 4.3.2.

1.3 The Lopit language

1.3.1 Classification

Lopit is classified as one of the Lotuxo languages along with Otuho, Dongotono, Lango and Lokoya (Lewis et al., 2016; Vossen, 1982). The Lotuxo sub-group has been classified within the Eastern Nilotic languages. Vossen’s work (1982) was important for establishing the relationships within the Eastern Nilotic sub-group. This group, together with the Western and Southern Nilotic languages are a sub-group of the Eastern Sudanic languages, part of the Nilo-Saharan phylum of languages (Lewis et al., 2016). The Nilotic languages are listed in Table 1-1. A map showing the location of the Nilotic languages is shown in Figure 1-3.

The history of the classification of Nilo-Saharan languages has been summarized by Bender (1997, p. 56), by Dimmendaal (2008) and by Güldermann (2018). The three-way division of Nilotic languages (Eastern, Western and Southern) was originally proposed by Köhler in 1948 (Vossen, 1983, p. 177). Tucker and Bryan used the terms Nilotic and Paranilotic (1966). Their term ‘Nilotic’ included only the Western Nilotic group and their term ‘Paranilotic’ (which had previously been called Nilo-Hamitic) included the Eastern and

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4 This is different to the Western Nilotic language of Lango, spoken in Uganda.

5 Note that there are some differences between the languages listed in Table 1-1 and Figure 1-3 as the information comes from different sources.
Southern Nilotic groups. The three-way division of Nilotic is now the generally accepted view.

Table 1-1: Classification of Nilotic Languages (Lewis et al., 2016).

<table>
<thead>
<tr>
<th>Region</th>
<th>Sub-Region</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>Bari</td>
<td>Bari</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kakwa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mandari</td>
</tr>
<tr>
<td>Lotuxo-Teso</td>
<td>Lotuxo-Maa</td>
<td>Lotuxo, Dongotono, Lango, Lokoya, Lopit, Otuho</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ongamo-Maa, Maasai, Ngasa, Samburu⁶</td>
</tr>
<tr>
<td></td>
<td>Teso-Turkana</td>
<td>Teso, Ateso</td>
</tr>
<tr>
<td></td>
<td>Turkana</td>
<td>Karamojong, Nyangato, Toposa, Turkana</td>
</tr>
<tr>
<td>Southern</td>
<td>Kalenjin</td>
<td>Elgon, Kupsapiiny, Sabaot</td>
</tr>
<tr>
<td></td>
<td>Nandi-Markweta</td>
<td>Kipsigis, Kipsigis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Markweta, Markweta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nandi, Aramanik, Keiyo, Kisankasa, Mediak, Mosiro, Nandi, Tugen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Okiek, Okiek</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pokot, Pökot</td>
</tr>
<tr>
<td>Tatoga</td>
<td>Datooga</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Omotik</td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td>Dinka-Nuer</td>
<td>Dinka – northeastern, northwestern, south central, southeastern, southwestern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nuer, Nuer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reel</td>
</tr>
<tr>
<td>Western</td>
<td>Luo</td>
<td>Anuak, Anuak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bor, Belanda Bor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jur, Luwo</td>
</tr>
<tr>
<td></td>
<td>Northern</td>
<td>Mabaan-Burun, Burun, Burun</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mabaan, Mabaan, Jumjum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shilluk, Shilluk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thuri, Thuri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unclassified, Päri</td>
</tr>
<tr>
<td>Southern</td>
<td>Adhola</td>
<td>Adhola</td>
</tr>
<tr>
<td></td>
<td>Kuman</td>
<td>Kuman</td>
</tr>
<tr>
<td></td>
<td>Luo-Acholi</td>
<td>Alur, Alur-Acholi, Lango-Acholi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alur, Acholi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lango</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Luo, Dholuo</td>
</tr>
</tbody>
</table>

⁶ Arusha and Parakayo are also regarded as Ongamo-Maa languages (D. L. Payne, 2012)
Figure 1-3: The Nilotic Languages (from Mietzner (2009, p. 21))
1.3.2 Previous work on Lopit

There has not been a great deal of work carried out on Lopit. Most of the early references to Lopit were made in connection to descriptions of Otuho language and culture. Raglan’s study of the Otuho language mentions a “dialect” spoken in Northern Lopit which is “near enough to the Lotuko for ordinary conversation” although “for hearing [legal] cases a local interpreter is required” (Raglan [Somerset], 1922, p. 267).

Muratori classified Lopit as a dialect of Otuho, although he also stated that it has some strong links to Bari and speculated that the Lopit may have broken away from the Bari when this later group moved from the south-east (1938, p. xvii).

Vossen provides a modified Swadesh list of 157 words from 24 Nilotic languages including Otuho, Lopit, Lokoya and Dongotongo (1982, p. 105). A sample from this list is shown in Table 1-2. Although this is not comprehensive, it suggests strong similarities across the languages. Vossen’s list shows lexical similarities of 63% between Lopit and Otuho, 66.4% between Lopit and Dongotongo and 57.4% between Lopit and Lokoya (1982, p. 111).

<table>
<thead>
<tr>
<th>Table 1-2: Some words in the Lotuxo languages (Vossen, 1982)7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
</tr>
<tr>
<td>'drink'</td>
</tr>
<tr>
<td>'child'</td>
</tr>
<tr>
<td>'be fat'</td>
</tr>
<tr>
<td>'be green'</td>
</tr>
<tr>
<td>'animal'</td>
</tr>
<tr>
<td>'night'</td>
</tr>
<tr>
<td>'tooth'</td>
</tr>
</tbody>
</table>

Studies of the Otuho language were conducted by Driberg (1932), Arber (1936), Muratori (1938) and Coates (1985). Muratori’s work is a major study of the grammar of the language. However, although he emphasizes “the great importance of tone or modulation in the Lotuxo language,” he does not mark tone in his grammar (1938, p. 18). Coates’ work is a study of the phonology of Otuho and includes a preliminary analysis of tone. She gives examples where tone is used to distinguish between indicative and imperative mood and between imperfective and perfective aspect (1985, p. 103).

In recent years there has been an increase in the research on Lopit. Turner carried out a study of the phonology (2001). A major study of the phonetics and phonology of Lopit has

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7 This list uses Vossen’s transcription.
been carried out by Billington (2017) and this research has greatly informed this grammar. Billington's work will be covered in Chapter 2.

As part of workshops organized by SIL (Stirtz, 2013), some linguistic materials have been produced. These include a short dictionary, alphabet and grammar books and texts (Ladu, Nartisio, Bong, Odingo, & Gilbert, 2014b, 2014a; Ladu, Nartisio, Bong, Odingo, Gilbert, et al., 2014). This work has utilised some of my earlier work on Lopit (Moodie, 2012, 2016).

A brief sketch and vocabulary of Lokoya (Oxoriok) was published by Westermann (1944). There do not appear to have been any other studies of Lotuxo languages.

1.3.3 The dialects of Lopit

The documents from the SIL workshops present information on five Lopit dialects (Dorik, Ngutira, Lomiaha, Lohutok and Lolongo). The consultants for this grammar state that there is another dialect, Ngabori. They say that the dialects are grouped geographically: three in the north (Ngabori, Dorik and Ngutira) and three in the south (Lomiaha, Lohutok and Lolongo). The locations of these are shown in Figure 1-4 (adapted from Driberg, 1932, p. 602).

![Figure 1-4: The location of the Lopit dialects](image-url)
There are significant regional variations amongst the Lopit speakers. This was described by Stirtz who reports category shifts in vowels and consonants as well as some tonal variation. Stirtz states that all dialects are at least 90% lexically similar with each other (2014, p. 1).

As mentioned above, there has been a close relationship between Otuho and Lopit. It appears that the southern dialects show more similarities to Otuho than the northern ones do. I have compared some words from the Lopit dialects (from Ladu et al (2014b) and from Stirtz (2014)) with those from Otuho (using data from Muratori (1938, 1948)). This comparison is illustrated in Table 1-3 (which uses the orthography of Stirtz for the Lopit dialects and that of Muratori for the Otuho, as does the in-text discussion).8

Stirtz (2014), who only considers Lopit data, identifies some phonological shifts in moving from the northern dialects to the southern ones. These include:

- the change of r to l in the word re, le, ‘milk’, and in leikele, okere, ‘pebble’
- the change of c (/c/) to s in ice, isia, ‘they’ and c to ty in icaha, ityara, ‘begin’
- loss of l (and the change from r to l) as in lorewa, olewa, ‘husband’
- variation between h and k in ihoi, ikoi, ‘path’

Table 1-3: A comparison of selected words from Lopit dialects with Otuho words

<table>
<thead>
<tr>
<th>Dorik</th>
<th>Ngutira</th>
<th>Lomiaha</th>
<th>Lohutok</th>
<th>Lolongo</th>
<th>Otuho</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ho</td>
<td>ho</td>
<td>iko</td>
<td>iko</td>
<td>iko</td>
<td>iko</td>
<td>‘with’</td>
</tr>
<tr>
<td>hulak</td>
<td>hilak</td>
<td>lomuk</td>
<td>illak</td>
<td>hilak</td>
<td>lomuk</td>
<td>‘some.M.PL’</td>
</tr>
<tr>
<td>habuci</td>
<td>habusi</td>
<td>habuok</td>
<td>habuok</td>
<td>habuok</td>
<td>hobwok</td>
<td>‘kings’</td>
</tr>
<tr>
<td>iho’</td>
<td>iko’</td>
<td>koi</td>
<td>hihe</td>
<td>eko’</td>
<td>‘path’</td>
<td></td>
</tr>
<tr>
<td>le’kere</td>
<td>le’kere</td>
<td>akelė</td>
<td>akelė</td>
<td>akelė</td>
<td>ekafe</td>
<td>‘pebble’</td>
</tr>
<tr>
<td>re</td>
<td>le</td>
<td>le</td>
<td>le</td>
<td>alee</td>
<td>‘milk’</td>
<td></td>
</tr>
<tr>
<td>tæhɔni</td>
<td>tæhɔni</td>
<td>tihɔni</td>
<td>tuŋani</td>
<td>tuŋani</td>
<td>ȅnæni</td>
<td>‘person’</td>
</tr>
<tr>
<td>w’or</td>
<td>w’or</td>
<td>kɔme</td>
<td>kɔme</td>
<td>wɔ</td>
<td>akumɛ</td>
<td>‘hole’</td>
</tr>
<tr>
<td>hiluk</td>
<td>hiluk</td>
<td>hiluk</td>
<td>ibu</td>
<td>ebou</td>
<td>‘hyena’</td>
<td></td>
</tr>
<tr>
<td>ib’ari</td>
<td>ib’ari</td>
<td>ibusari</td>
<td>ibusari</td>
<td>oburusari</td>
<td>burusari</td>
<td>‘escape’ (v)</td>
</tr>
<tr>
<td>icaha</td>
<td>icaha</td>
<td>ityara</td>
<td>itiara</td>
<td>itiara</td>
<td>ittyara</td>
<td>‘begin’ (v)</td>
</tr>
<tr>
<td>hojo</td>
<td>ojo, ette</td>
<td>ojo</td>
<td>ete, ojio</td>
<td>ette</td>
<td>‘and (then)’</td>
<td></td>
</tr>
<tr>
<td>inya</td>
<td>inya, obey</td>
<td>obe</td>
<td>obeñ, obe</td>
<td>obeñ</td>
<td>‘is not’</td>
<td></td>
</tr>
</tbody>
</table>

8 As will be explained in section 1.4.2.3, ini citing examples, I use the orthographies which are used in the original sources.
It could be that there is a dialect chain or that the three southern dialects are more closely related to Otuho than Lopit. Most of the changes which take place as one goes southwards down the Lopit Mountains (i.e. from left to right in Table 1-3) are changes which conform to the Otuho words. Some of these changes are phonological, such as $rɛ \rightarrow lɛ$ and $thoi \rightarrow ekoi$ and $lorewa \rightarrow alyawa$. However, there are also significant lexical changes. These could be the result of shared retention. The words for ‘person’ are $tohoni$ in the north and $tungani$, /tuŋani/, in the south, which is very close to $ingani$ in Otuho. This pattern is similar for $ho$, $iko$, ‘with’; $ibwari$, $oburusari$, ‘escape’; and $habusi$, $habuok$, $hobwok$, ‘kings’.

Two other examples, where quite different words are used, involve the negative auxiliary verb ($inya$, /ɪɲa/, in Dorik and $beng$, /beŋ/, in Otuho) and the ‘and (then)’ clause linker ($hojo$, /χɔɟɔ/, in Dorik and $ette$ in Otuho$^9$). In several stories from the southern dialects (and from Ngutira) the two forms appear to be used interchangeably. This suggests possible borrowings from language contact.

Although the comparison in Table 1-3 is very preliminary, it does suggest that the similarities between Otuho and the southern Lopit dialects (and perhaps even Ngutira) are greater than those between Otuho and the Dorik dialect. Another possibility is that the southern inhabitants of the Lopit Mountains may, in fact, be people of Otuho origin who now identify with the Lopit. For example, Raglan states that the Lomiah (‘Lomia’) are “Lotuko” and “still exist …… in Southern Lopit” (1918, p. 154). There is clearly a need for more detailed historical, ethnographic research in this region in addition to linguistic research.

1.4 The present study

1.4.1 Motivations

There was little known about the grammar of Lopit and no comprehensive study of the grammar had been carried out when I began this research. This thesis shows that there are many interesting features of the language that are worthy of in-depth study. These include the complexity of the verbal systems, such as the verbal derivational features and the tense, aspect and modal systems, the complexity of the number marking system and the nature of clause combination.

$^9$ The word $ette$, ‘and then’, is described by (Muratori, 1938, p. 163) as an auxiliary verb $te$ meaning ‘and right after’ (‘e subito dopo’ in Italian, the language in which the grammar is written).
No significant study of any Lotuxo sub-group language has been carried out since that on Otuho by Muratorri (1938). This study will provide useful insights into this sub-group as well as provide comparative data for the other more widely studied Eastern Nilotic languages of Maa and Teso-Turkana sub-groups. Of the Eastern Nilotic languages, the Bari sub-group (Cohen, 2000; Spagnolo, 1933); the Teso-Turkana sub-group (Barasa, 2017; Dimmendaal, 1983b; Novelli, 1985, 1985; Schröder & Schröder, 1984); and the Maa subgroups (D. L. Payne, 1998, 2003, 2013; Tucker & Mpaayei, 1955) have been well documented. The lack of knowledge of the Lutoxo sub-group has, until now, been a significant gap in our understanding of the Eastern Nilotic group. Documentation of Lopit will also improve the cross-linguistic understanding of some of the well-known features of Nilo-Saharan languages such as number marking, marked nominative case, aspect marking and comitative constructions.

The documentation of the Lopit language is important for other reasons. Lopit is a vulnerable language and becoming even more so with the continued social, political and economic unrest in South Sudan. Increasingly more people are becoming displaced from their homelands such that traditional cultures and languages are becoming even more threatened.

The main audience for this work is academic linguists. However, it is also intended as a resource for the Lopit community, complementing other community-oriented materials which have been developed during this study. This grammar might be used in the development of teaching materials and in encouraging the growth of literacy in the Lopit language.

### 1.4.2 Methodology

#### 1.4.2.1 Participants

The main consultants in this study are members of the Lopit community of Melbourne. There are 10-12 families of Lopit origin who have migrated from South Sudan during the last 17 years. Most of them live in the south-eastern suburbs of Melbourne. They speak Lopit at home and also speak English. In addition, they often speak Juba Arabic, which is a lingua franca in South Sudan and also, to a certain extent, amongst the South Sudanese community in Melbourne. Some also speak Otuho. Most came to Australia indirectly, often though Kenya, Uganda and Egypt. Many have lived in the Kakuma refugee camp at Kakuma, in Turkana Province in Northern Kenya. Like many South Sudanese migrants in Australia, they maintain close contact (particularly via phone) with family and friends in South Sudan and in refugee camps in Kenya and Uganda.

This study concentrates on the Dorik dialect. Since so little work has been carried out on the Lopit language, describing the grammar of one dialect is less complex as a first step. This
study will also serve as a point of reference for studies of the other dialects. The Dorik speakers are well-represented in the Lopit community in Melbourne.

Most of the data has been collected with five speakers from the Melbourne Lopit community. They comprise three men and two women, aged between 30 and 55. They all originate from villages where the Dorik dialect is spoken. Dorik is spoken in at least six villages: Haba, Lobelo, Lodo, Lodohori, Logonowati and Losharuk. In addition, further data was collected from Lopit speaking residents of the Kakuma refugee camp. This includes video and audio recordings and written stories. These consultants include Dorik speakers as well as speakers of other dialects.

I had hoped to visit the Lopit Mountains to record speakers in their homeland. However, South Sudan has been in a state of civil war since 2013. This has made it impossible to gather data in the homeland of the Lopit speakers.

1.4.2.2 Data collection and documentation

Most of the data has been collected during recording sessions in Melbourne and Kakuma. These sessions involved elicitation, conversations, storytelling, descriptions and singing. In addition, some stories have been written down by members of the Kakuma Lopit community. The corpus contains about 18 hours of recorded texts, comprising about 2 hours of narratives, descriptions and conversations. The reminder of the texts are elicitation.

In this study, I have also used some of the material from both the Linguistic Field Methods course I attended in 2011 (conducted with one of the Melbourne-based Lopit consultants) and from my Honours thesis, “A Sketch of the Verb in Lopit” (Moodie, 2012).

I have used ELAN (The Language Archive, 2016) to transcribe all the audio recordings with some additional work to assist with tonal analysis using Praat (Boersma & Weenik, 2016). Transcriptions in the ELAN files have been made using the International Phonetic Alphabet and, in some cases, a working orthography (see section 2.7). As mentioned earlier, Billington has carried out a comprehensive study of the phonetics and phonology of Lopit (2017) and the transcription conventions used in this work are generally consistent with her approach. A lexical database, using Language Explorer (Flex) (SIL International, 2016), was established by Rosey Billington and I have added to this. The recordings used in this thesis will be archived through PARADISEC\(^{10}\) and will be used as a corpus for further research.

1.4.2.3 Data presentation conventions

In this thesis, I use broad phonetic transcription in glossed examples and tables. Abbreviations used in glosses are given in Appendix A. The transcription of vowels in any example reflects the results of any harmony and assimilation processes present. The in-text examples are also given in broad phonetic transcription. Square brackets are used to indicate what was transcribed (e.g. [xɔ́ múnì niá xòjef]). Where words or stems are discussed in general terms rather than in an extract from a transcription, they are transcribed without tones, as the tones in any particular utterance depend on a number of factors such as case, aspect, number (e.g. /wolo/, ‘see’; /m:an/, ‘this.F’). In examples where there are two adjacent phonemic vowels, e.g. /ŋa-ɪ/, but which are produced phonetically as a diphthong, a single tone unit is used, i.e. /ŋaɪ/. On the other hand, if two adjacent vowels are not produced as a diphthong, they both have tonal marking, such as in [móitéi], ‘morning’.

Examples taken from other sources are given in transcription using the orthography of the original reference, since these are usually written in a specific orthography, sometimes without tone. In-text examples from other sources are written in italics.

Each example in this thesis has a code which signifies the original recording session or source. Appendix B provides a key to these codes.

1.5 Typological features of the language

In this section I present an outline of the typographical features of Lopit. I discuss some of the features which it shares with other Eastern Nilotic (EN) languages and with Nilotic and Nilo-Saharan languages more broadly. This comparison is not a comprehensive one and the reader is referred to other primary literature for a fuller picture. All the features of Lopit described here are discussed in detail in the body of the thesis.

In Lopit, there are four supralaryngeal places of articulation for the stops and the nasals and voicing contrasts for the stops. There is also a glottal stop which occurs word-finally. There are three phonemic fricatives (/f/, /s/, and /x/) and these lack a voicing contrast. The liquids comprise the rhotics /ɹ/ and /ɹ/, which are contrastive intervocally, and the lateral /l/. The glides comprise /w/ and /j/. This is typical of (non-Bari) EN languages (Billington, 2017).

Lopit is characterized by a nine-vowel system with an Advanced Tongue Root distinction and vowel harmony. Lopit is a tonal language and there are three tonal contrasts: High, Low and Falling (High-Low). Tone is important grammatically and appears to be of greater functional load grammatically than lexically. Tone is used for inflectional case-marking, aspect marking and, to a lesser extent, in number marking.
All nouns in Lopit are inherently classified as either masculine or feminine and this applies to both singular and plural. Gender marking on the noun is rare. Gender is indicated by agreement marking on demonstratives, relative pronouns and possessives. In other Eastern Nilotic (EN) languages, gender marking on nouns is widespread. Dimmendaal describes the marking of gender on the nouns as an innovation of the Eastern Nilotic branch of Nilotic (2011, p. 93). In Lopit, large animals and things are typically marked with feminine gender and small things with the masculine. Lopit (and Otuho) differ from the other Eastern Nilotic languages, where masculine gender is associated with large things. Gender marking can be manipulated by speakers to indicate that the referent is smaller or larger.

Lopit follows the tripartite system of singulative, pluralive and replacement number marking, which is common in Nilo-Saharan languages. There is a semantic basis for the assignment of a lexeme to singulative versus pluralive number marking pattern. There is a diverse range of number marking affixes. Lopit appears to be unique amongst EN languages in that it has a ‘greater singular’. This is when the singular form of a noun can sometimes have a meaning which indicates a very large number (in addition to its normal meaning as a singular). The use of the singular marker to indicate ‘a very large number’ does not appear to have been described in the literature (for any language, although my research is not exhaustive).

The formation of nouns from verbs is a very productive process in Lopit. A number of different types are found. These include action and state nouns, which generally have the same form as the infinitive, and agentive, instrumental, manner, locative, objective and reason nouns, which have characteristic markings.

Like other EN languages, Lopit has two classes of verbs, one which has a root-initial close front vowel (Class II) and one in which the root is consonant-initial (Class I). Lopit has bound pronominal marking on verbs for subjects and for objects which are discourse participants. The first, second and third person singular subject markers are (/a/-, /ɪ-/ , /ɛ- /), which are widespread in Nilo-Saharan languages.

There are a number of affixes which form the causative, dative, benefactive and instrumental derivations. Movement towards and away from the speaker (ventive and itive) is also expressed with suffixes.

Lopit does not have grammatical tense. Temporal reference is provided by adverbs, prepositional phrases, noun phrases and by the discourse context. Lopit can be described as an aspect-oriented language, in common with many Nilo-Saharan languages. Lopit has a three-way contrast in aspect: neutral, imperfective and perfective. This has not been noted for other EN languages. In addition, the marking of aspect is determined by the verb root structure. Verbs with the root structure (i)CVC are marked differently to those verbs with
the structure (i)CVCV. The marking of the perfective aspect also depends on whether or not the verb is used in a derived form. These patterns have not been recorded for other EN languages.

There is a range of affixes, as well as the reduplication process, which can convey a sense of the generic, progressive, habitual and repetitive in Lopit. These different types can all be regarded as sub-categories of the imperfective (as in Comrie’s classification (1976, p. 25)). There is also a prefix /IV-/ PER (.persistive) which indicates that the activity is (or was) ongoing and can usually be translated by ‘still’. It can be used with both activity and stative verbs and can be used with both imperfective and neutral aspect.

Lopit has a range of modal distinctions, including the irrealis, the potential, the conditional and the obligative. It appears that other EN languages have fewer modal distinctions, generally only an irrealis (or subjunctive).

Although EN languages have inchoative constructions utilising the perfective and/or the ventive/itive, Lopit has four distinct categories of inchoatives, whose marking is determined by verb class, the type of stative verb and the aspectual viewpoint of the verb.

Lopit is a verb-initial language and the unmarked word order is VSO. Lopit has a marked nominative case system with nominative and absolutive case, indicated by tone. These features are found in other EN languages.

Standard negation is Lopit is expressed with the auxiliary verb /ɲa/, ‘not be’. When it is used with a lexical verb, this verb moves away from the first position in the clause (to a position after the subject) and is prefixed with the subordinate marker /l-/ ‘SBO’. The main verb maintains its person/number marking. There is also a special negative construction which uses the auxiliary /ɲɛɪ/ in the persistive aspect the Lopit translation of ‘not still’.

Property concepts are mainly expressed with a broad range of stative verbs in relative clause constructions. There are very few ‘true adjectives’ which can be used attributively.

Lopit combines clauses in a variety of ways to produce coordinating constructions. One of the most common ways of linking clauses is with the use of a prefix on the verb. Clauses can be coordinated with the use of the sequential marker, /x-/ on the verb which leads the second of the two coordinated clauses. This occurs in other EN languages, although different prefixes are used.

11 I use the term absolutive rather than accusative. See section 7.3.5 for an explanation.
Lopit has a range of constructions based on the comitative preposition /ɔ/, ‘with’. Like other EN languages, Lopit can be described as a WITH-language (Stassen, 2000) and has what I call ‘normal comitative’ constructions and ‘inclusory’ constructions. Normal comitative constructions exhibit person and number agreement between the subject NP and the verb. Inclusory constructions show number agreement between the verb and a superset comprising the subject and object NP. There are two kinds of inclusory constructions (ICs), called ‘normal’ and ‘special’. In a special IC, the subject NP is not present in the clause, but is topicalised. The subject NP is lower on the person hierarchy than the oblique NP. I have not observed this kind of construction in other Nilotic languages or, indeed, elsewhere.
Chapter 2  Phonology

2.1  Introduction

The previous chapter introduced this thesis and provided an overview of the linguistic and cultural context of Eastern Nilotic languages. In this chapter, I provide an overview of the phonology of the Lopit language. As mentioned in the previous chapter, this will concentrate on the Dorik dialect. This chapter is rather brief, largely because of the comprehensive study of Lopit phonetics and phonology carried out by Billington (2017), to which the reader is referred for a more detailed account. Previous work was carried out by Vossen (1983), Turner (2001) and Stirtz (2014).

In section 2.2, I outline the consonant inventory. This is followed by section 2.3 on the vowels in the language. In section 2.4, I discuss the main phonological processes, including vowel harmony. This is followed, in section 2.5, by an introduction to the tonal contrasts and patterns in the language. Since tone plays a significant role in some aspects of the grammar, I will provide some examples as background information for later parts of this grammar. In section 2.6, I provide a short overview of syllable structure. Finally, in section 2.7, I present a working orthography for Lopit. This is not a formally established orthography, rather it is the working orthography used with the Lopit community during this project.

2.2  Consonants

A consonant inventory for Lopit is shown in Table 2-1. This is based on the work of Billington (2017). There are four supralaryngeal places of articulation for the stops and the nasals, and there is a voicing contrast for the stops. There is also a glottal stop which occurs with a restricted distribution. There are three phonemic fricatives (/f/, /s/ and /x/) and these lack a voicing contrast. The fricative [ʃ] is occasionally observed, sometimes as a variant of /s/ and perhaps /c/ (Billington, 2017, pp. 105–106). It is observed in loan words like /ʃai/, 'tea', and is sometimes heard as a variant in the plural suffix /-Cin/, e.g. [kuraʃin], 'balls', and [loluʃin], 'head-dresses'.

Length is contrastive for some consonants. The contrast occurs with the alveolar stops, the alveolar nasal and with the glides and lateral. The voiceless labial stop is often found as a geminate, but this does not appear to be contrastive (see Billington (2017, p. 93)). The distinction between /s/ and /r/ can also be viewed as part of the length contrast among alveolars.
Table 2-1: The phonemic consonant inventory in Lopit

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Pal. Alv.</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p, b</td>
<td>t, d</td>
<td>c, j</td>
<td>k, g</td>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>n:</td>
<td>j</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap/Flap</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f, s</td>
<td>(ʃ)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx.</td>
<td>w</td>
<td></td>
<td></td>
<td>j</td>
<td>j:</td>
<td></td>
</tr>
<tr>
<td>Lateral Approx.</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Obstruents:** The obstruents are found in most word positions, as shown in Table 2-2. Only the geminate /dː/ and the glottal stop have not been observed word-initially and only the glottal stop has not been observed intervocalically. The glottal stop has been established as phonemic but it is only produced pre-pausally (Billington, 2017, p. 111). A number of obstruents are not found word-finally; /p/, /tː/, /dː/, /c/, /ɡ/ and /x/. More generally, none of the geminate consonants occur word-finally.

Table 2-2: Examples of obstruent contrasts in different word positions

<table>
<thead>
<tr>
<th>C</th>
<th>word-initial</th>
<th>intervocal</th>
<th>word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>pòtò ‘clean.INF’</td>
<td>òpòt ‘3SG.clean.N’</td>
<td>-</td>
</tr>
<tr>
<td>b</td>
<td>bòjó ‘spinach.PL’</td>
<td>rùbó ‘sip.INF’</td>
<td>itàb ‘bribe.SG’</td>
</tr>
<tr>
<td>f</td>
<td>fèdè ‘gourd.SG’</td>
<td>rifà ‘sew.INF’</td>
<td>ákáf ‘1SG.raise.N’</td>
</tr>
<tr>
<td>t</td>
<td>tàn ‘bow.SG’</td>
<td>fètèk ‘(fishing) spear.SG’</td>
<td>nàrát ‘(farming) plateau.SG’</td>
</tr>
<tr>
<td>t:</td>
<td>tɔxɔ ‘finish.INF’</td>
<td>mɔtè ‘friend.SG’</td>
<td>-</td>
</tr>
<tr>
<td>d</td>
<td>dòmí ‘knife.SG’</td>
<td>fèdè ‘gourd.SG’</td>
<td>afpád ‘1SG.whip.N’</td>
</tr>
<tr>
<td>d:</td>
<td>-</td>
<td>sàdà ‘stool.SG’</td>
<td>-</td>
</tr>
<tr>
<td>s</td>
<td>sàŋ ‘thing.PL’</td>
<td>lísá ‘tail.SG’</td>
<td>gùs ‘fur.SG’</td>
</tr>
<tr>
<td>c</td>
<td>cùxò ‘stab.INF’</td>
<td>ácá ‘1SG.dance’</td>
<td>-</td>
</tr>
<tr>
<td>j</td>
<td>jètò ‘sleep.INF’</td>
<td>réjìn ‘milk.PL’</td>
<td>áxèj ‘1SG.fry.N’</td>
</tr>
<tr>
<td>k</td>
<td>kùrèk ‘(small) hoe.SG’</td>
<td>wàkà? ‘okra.SG’</td>
<td>xútòk ‘mouth.SG’</td>
</tr>
<tr>
<td>g</td>
<td>gɔnè ‘colleague.SG’</td>
<td>mògè ‘(sleeping) skin.SG’</td>
<td>-</td>
</tr>
<tr>
<td>x</td>
<td>xàlài ‘edge.SG’</td>
<td>dàxà ‘eat.INF’</td>
<td>-</td>
</tr>
<tr>
<td>?:</td>
<td>-</td>
<td></td>
<td>nɔlè? ‘yesterday’</td>
</tr>
</tbody>
</table>

In specific morphological contexts, there can be a lenition process leading to a realisation of intervocalic /k/ as [x]. This can occur root-finally for verbs with (i)CVC stems (as in (1))
and when number marking suffixes are added to nouns ending in /k/ (as in (2)). This is described in more detail by Billington (2017, p. 107).

(1) ̀d-múk → ̀d-múx-ò
3-raid.N 3-raid-IPFV

(2) mwàràk → mwáráx-i
horn.PL horn-SG

The labiodental fricative /f/ is sometimes partly voiced intervocalically. The word /ifa/, 'finally', 'at last', is sometimes heard as approaching [ívà] (CP:15:34). Similarly, /xifjoŋ/, 'water', can be heard as [xìvjôŋ]. However, [v] is not contrastive.

Nasals: The nasals commonly occur in all word positions except for the geminate /nː/ which is not very common and, like other geminates, is not attested word-finally. Some examples are shown in Table 2-3.

<table>
<thead>
<tr>
<th>C</th>
<th>word-initial</th>
<th>intervocalic</th>
<th>word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>mát:é ‘friend.SG’</td>
<td>tòmàn ‘ten’</td>
<td>tìm ‘scrubland.SG’</td>
</tr>
<tr>
<td>n</td>
<td>nàŋ ‘me (1SG.ABS)’</td>
<td>múní ‘snake.SG’</td>
<td>búsàn ‘be.straight.INF’</td>
</tr>
<tr>
<td>nː</td>
<td>nːàŋ ‘slap.INF’</td>
<td>wɔ́mí? ‘valley.PL’</td>
<td>-</td>
</tr>
<tr>
<td>ɲ</td>
<td>ɲàràt ‘(farming) plateau.SG’</td>
<td>mɔ̀ɲè ‘father.SG’</td>
<td>ìxón ‘3.bite.N’</td>
</tr>
<tr>
<td>ɲː</td>
<td>ɲɔ̀lɛ́ ‘yesterday’</td>
<td>dɔ̀ɲé ‘mountain.SG’</td>
<td>dąŋ ‘all’</td>
</tr>
</tbody>
</table>

Liquids: Of the liquids, the tap /ɾ/ is only contrastive intervocalically, as shown in Table 2-4. In other positions, the contrast between /ɾ/ and /r/ is neutralised. For example, when it occurs as the onset of the final syllable in a word (such as a verb) which then loses its final vowel in an inflectional process, the tap is now in the coda position and it is realised as a trill. Thus, the middle voice imperfective form of /borə/, ‘break’, ‘smash’, is [bôr-ə], '3-break-MI', with the tap. In the perfective, active voice, the verb is produced as [e-i-bôr], '3-PVF-break', with a word-final trill.

<table>
<thead>
<tr>
<th>C</th>
<th>word-initial</th>
<th>intervocalic</th>
<th>word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>-</td>
<td>rɔ̀rì? ‘word.PL’</td>
<td>-</td>
</tr>
<tr>
<td>r</td>
<td>ràfà ‘touch.INF’</td>
<td>ñàràt ‘farming plateau (SG)’</td>
<td>táfár ‘waterhole.SG’</td>
</tr>
<tr>
<td>l</td>
<td>lām ‘(king’s) hunt.SG’</td>
<td>gflàs ‘glass.SG’</td>
<td>ìwál ‘3.cough.N’</td>
</tr>
<tr>
<td>lː</td>
<td>lɔ́mù ‘punch.INF’</td>
<td>ìlùm ‘3.punch.N’</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2-3: Examples of nasal contrasts in different word positions

Table 2-4: Examples of liquid contrasts in different word positions
Glides: The glides are found word-initially and intervocally but not word-finally (see Table 2-5). Previously, there have been some suggestions of length contrasts within the glides (Stirtz, 2014, pp. 10–11; Turner, 2001, pp. 7–11; Vossen, 1982, pp. 189–192). Billington has confirmed this in a phonetic investigation, finding that there are “substantial and significant differences in duration between proposed singletons and proposed geminates, with /w:/ being 1.71 times longer than /w/ and /j:/ being 1.82 times longer than /j/”, with additional formant and amplitude cues (2016, 2017, p. 268).

Table 2-5: Examples of glide contrasts in different word positions

<table>
<thead>
<tr>
<th>C</th>
<th>word-initial</th>
<th>intervocalic</th>
<th>word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>w</td>
<td>wáxá ‘(distant) bushland.SG’</td>
<td>rèwà ‘husband.PL’</td>
<td>-</td>
</tr>
<tr>
<td>w:</td>
<td>wáràn ‘exist.INF’</td>
<td>iwāʔ ‘wing.PL’</td>
<td>-</td>
</tr>
<tr>
<td>j</td>
<td>jōxēʔ ‘ear.PL’</td>
<td>kéjâ ‘(small) peanut.PL’</td>
<td>-</td>
</tr>
<tr>
<td>jː</td>
<td>jːōnì ‘hide.SG’</td>
<td>sájːéʔ ‘message.SG’</td>
<td>-</td>
</tr>
</tbody>
</table>

2.3 Vowels

2.3.1 Monophthongs

There are nine monophthongs in Lopit as shown in Table 2-6. The back vowels are rounded. There are two sets of vowels distinguished by the feature of Advanced Tongue Root (ATR). The open vowel /a/ has been classified as a [–ATR] vowel as it patterns with the [–ATR] vowels in vowel harmony processes (Billington, 2017, p. 138). A nine vowel system is very common in Nilo-Saharan languages (Casali, 2003, 2008). This system is typical of Eastern Nilotic languages (see Guion et al (2004) for the system in Maa).

Table 2-6: The vowels in Lopit

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATR</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>high</td>
<td>i</td>
<td>i</td>
<td>o</td>
</tr>
<tr>
<td>mid</td>
<td>ē</td>
<td>e</td>
<td>ɛ</td>
</tr>
<tr>
<td>low</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is no evidence of length contrasts among the vowels in Lopit. Complex vowel contrasts, such as vowel length and phonation, are found in many Western Nilotic languages, but these are not typical of Eastern Nilotic languages (Billington, 2017, pp. 59–64). A representation of the vowel qualities is shown in Figure 2-1 (from Billington, 2017, p. 131). In general, the [+ATR] vowels have a closer quality than their [−ATR] counterparts, as evidenced by differences in the first formant frequency (Billington, 2017, p. 204).

**Figure 2-1: A representation of the Lopit monophthong inventory**

Some examples of [ATR] contrasts in Lopit monophthongs are shown in Table 2-7. Ultrasound tongue imaging has shown that the tongue position is more anterior for the [+ATR] than for the [−ATR] set of vowels (Billington, 2014, 2017, p. 210). The observed differences in first format frequency therefore appear to correlate with the manipulation of tongue root position rather than tongue body height.

**Table 2-7: Examples of monophthongs showing [ATR] contrasts**

<table>
<thead>
<tr>
<th>V</th>
<th>word</th>
<th>English</th>
<th>V</th>
<th>word</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>gîlà</td>
<td>‘think.INF’</td>
<td>i</td>
<td>gîtà</td>
<td>‘shave.INF’</td>
</tr>
<tr>
<td>e</td>
<td>mëřîʔ</td>
<td>‘bells’</td>
<td>e</td>
<td>mëřîjéʔ</td>
<td>‘red ochre powder’</td>
</tr>
<tr>
<td>o</td>
<td>lômînì</td>
<td>‘leopard’</td>
<td>o</td>
<td>lômëʔ</td>
<td>‘millet’</td>
</tr>
<tr>
<td>u</td>
<td>xùnôm</td>
<td>‘cave’</td>
<td>u</td>
<td>xûltûk</td>
<td>‘hyena’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>a</td>
<td>mânà</td>
<td>‘field’, ‘farm’</td>
</tr>
</tbody>
</table>

Most of the vowels are found in all word positions. Only the vowels /u/ and /û/ are not found word-initially.

---

12 However, Griscom & Payne (2017, p. 147) report a length contrast among vowels in Southern Kenyan Maa.
2.3.2 Diphthongs

There are a number of closing diphthongs in Lopit. Some examples are given in Table 2-8. Many occur phonetically, resulting from vowel sequences at morpheme boundaries between noun and verb roots and such things as number marking affixes, verbal derivational and inflectional affixes. There are also some inflectional morphemes with phonemic diphthongs. These include /ŋai-/,'irrealis marker'; /mai-/, 'conditional/consequent marker'; the ventive suffix /-ɛi/; and the imperative prefixes /xoi-/, '2>1.IMP' and /tɛi-/,'2>2.IMP'. With diphthongs, there is only one tone. In this thesis, the tone is only marked on the second vowel, as shown in Table 2-8. If two tones are marked on adjacent vowels, then the vowels are expressed separately, as in the word [móíte?], 'morning'.

<table>
<thead>
<tr>
<th>V</th>
<th>[+ATR]</th>
<th>V</th>
<th>[-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ei</td>
<td>jei</td>
<td>'how'</td>
<td>ei</td>
</tr>
<tr>
<td>oi</td>
<td>imoi?</td>
<td>'rhinoceros'</td>
<td>ɔi</td>
</tr>
<tr>
<td>ai</td>
<td>xai?</td>
<td>'rain'</td>
<td>ai</td>
</tr>
<tr>
<td>aʊ</td>
<td>xo:i?</td>
<td>'wild food'</td>
<td></td>
</tr>
</tbody>
</table>

Billington (2017, p. 136) notes that phonemic /au/ is vary rare. The diphthong [au] occurs often, but not contrastively; it arises where the [+ATR] ventive suffix /-u/ is used.

2.4 Phonological processes

2.4.1 ATR harmony

Lopit has a vowel harmony system based on the feature ATR, with [+ATR] as the dominant feature. Vowel harmony spreads from right to left, so that a [+ATR] vowel will cause a preceding [-ATR] vowel to be realised as its [+ATR] counterpart. This can occur, for example, if a [+ATR] suffix is added to a word. This is illustrated in Table 2-9 with a range of number marking suffixes and their associated nouns. Note that number inflection can also commonly cause differences in tone pattern (see section 4.3 on number marking).

<table>
<thead>
<tr>
<th>root</th>
<th>English</th>
<th>suffix</th>
<th>inflected form</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>àxòr</td>
<td>'star.PL'</td>
<td>-i</td>
<td>àxérí</td>
<td>'star.SG'</td>
</tr>
<tr>
<td>xɔɔr</td>
<td>'hair.PL'</td>
<td>-i</td>
<td>xɔɔrí</td>
<td>'hair.SG'</td>
</tr>
<tr>
<td>lɔddɔkɔ?</td>
<td>'sorghum.PL'</td>
<td>-ti</td>
<td>lɔddɔkɔtì</td>
<td>'sorghum.SG'</td>
</tr>
<tr>
<td>lɔgʊrʊm</td>
<td>'mushroom.SG'</td>
<td>-oʔ</td>
<td>lɔgʊrʊmɔʔ</td>
<td>'mushroom.PL'</td>
</tr>
</tbody>
</table>
The process can also occur when a [-ATR] prefix is added to a [+ATR] stem. A common [-ATR] prefix is the third person agreement marker /ɛ-. The ATR quality of this vowel can change (or not) depending on the vowel quality in the verb root. Some examples are given in Table 2-10. In the third and fourth examples in this table, the vowel quality is unchanged (e.g. [ɛðólæ]) as there are no [+ATR] vowels to the right of the prefix /ɛ-.

In general, vowels in the same word will have the same vowel quality. However, it is possible to have both [+ATR] and [-ATR] vowels in the same word, i.e. disharmony. This can occur when a [-ATR] suffix is fixed to a word with [+ATR] vowels. Since vowel harmony is [+ATR] dominant and is only triggered from the right, the addition of a [-ATR] suffix does not change the quality of any of the preceding [+ATR] vowels. This is illustrated with the plural suffix /-ɟɪn/ containing the [-ATR] vowel /ɪ/. When added to the singular noun [ɪðóʔ], 'sky', the plural, [ɪðóɟɪn], 'skies', has both [+ATR] and [-ATR] vowels.

Table 2-10: Examples of [ATR] harmony with the prefix /ɛ-/

<table>
<thead>
<tr>
<th>verb root</th>
<th>3rd person</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ídúró</td>
<td>eídúrò</td>
<td>'be late'</td>
</tr>
<tr>
<td>ciëtáʔ</td>
<td>èciétà</td>
<td>'vomit'</td>
</tr>
<tr>
<td>ídòlà</td>
<td>eídòlà</td>
<td>'sow'</td>
</tr>
<tr>
<td>réxà</td>
<td>èrèxà</td>
<td>'make friends'</td>
</tr>
</tbody>
</table>

Disharmony can also arise when the open vowel /a/ is in a word. This vowel is neutral to the process and will block harmony from spreading to the left. It can therefore occur with both [+ATR] and [-ATR] vowels within a word. For example, the second person form of the verb /lːumo/, 'punch' is [iːlːúmò]. [+ATR] has spread from the verb to the prefix /i-/, changing it from [-ATR] to [+ATR], [iː]. When the irrealis, [ɪ́ŋaiːlːúmò], is formed, the second person prefix /i-/ is realised as [i] since the /a/ in /ŋai/ blocks the harmony spreading to the left. The word [ɪ́ŋaiːlːúmò] thus has both [-ATR] and [+ATR] vowels.

Billington examined tokens of /a/ in the [+ATR] and the [-ATR] environments. In the former environment, one might expect the influence of vowel harmony to trigger a change in vowel quality if there were a [+ATR] allophone. However, no significant acoustic differences were observed and so one can say "that the Lopit vowel system includes only one open vowel, /a/." (2017, p. 221).

2.4.2 Mid-vowel assimilation

There is a process of mid-vowel assimilation in Lopit. This occurs when the mid-front vowels /e/ and /ɛ/ occur in prefixes or clitics which precede the back rounded vowels /o/, /ɔ/, /u/ and /ʊ/. In these situations, the mid-front vowels are realised as the mid-back vowels [o]
and [ɔ], depending on their ATR quality. Some examples are given in the right hand columns of Table 2-11 and these can be compared with the unaltered examples in the left hand column. The most common examples are those involving the third person subject agreement marker /ɛ/- (and [e-]). Other prefixes undergoing this process include the imperative prefix /te/-, perspective prefix /le/- (see section 6.4.3.5) and the obligative prefix /te-/- (see section 6.5.5).

Mid-vowel assimilation is observed with some prepositions and relative pronouns. Table 2-11 shows the mid-vowel assimilation on the relative pronoun /le/, 'REL.M', which is realised as [lo] (note there is also [ATR] harmony here). This kind of assimilation also happens with the prepositions /de/, 'on', /te/, 'from', 'with', and /le/, 'of.M'.

<table>
<thead>
<tr>
<th>prefix</th>
<th>inflected front vowel stem</th>
<th>inflected back vowel stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɛ-</td>
<td>é-dáxá</td>
<td>'3- eat.N'</td>
</tr>
<tr>
<td>ɛ-</td>
<td>é-ríta</td>
<td>'3-tear.IPFV'</td>
</tr>
<tr>
<td>ɛ-</td>
<td>tɛ-fjá</td>
<td>'IMP-clean'</td>
</tr>
<tr>
<td>le-, ɛ-</td>
<td>lè l-ɛ-íságà</td>
<td>'REL.M SBO-3-be.tall'</td>
</tr>
</tbody>
</table>

There are some other examples of this process which do not involve a back vowel in the stem. The singleton and geminate labial-velar glides can also cause the third person prefix to be realised as a back vowel. Some examples are given in Table 2-12 with stem-initial /w/ and /wː/. This also happens even when /w/ is separated from the target vowel by another consonant. Some examples are given with /kw/, /lw/ and /mw/. The labial-velar glides have lip-rounding and it would appear that this is what triggers mid-vowel assimilation.

<table>
<thead>
<tr>
<th>word</th>
<th>gloss</th>
<th>word</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ñ-wák</td>
<td>'3-want.IPFV'</td>
<td>ñ-lwák</td>
<td>'3-help.IPFV'</td>
</tr>
<tr>
<td>ñ-wːár</td>
<td>'3-be.alive'</td>
<td>ñ-mweí</td>
<td>'3-be.ill'</td>
</tr>
<tr>
<td>ñ-kwédá</td>
<td>'3-sing.IPFV'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This kind of assimilation can be blocked in a number of ways. The most obvious is when there is a close-front vowel intervening, such as the perfective prefix /(ɔ)ɪ-/. This is illustrated in (3) with the verb /ŋɔr/, 'sting'. The pronounal prefix is realised as [ɔ] with the imperfective and as [ɛ] with the perfective.

(3) ɔ-ŋɔr 3-sting.IPFV ɛ-ŋɔ́r 3-PFV-sting
Sometimes, the singleton and geminate palatal glide will block mid-vowel assimilation, as is shown in (4).

(4) è-j:jò tèːj:jò
     3-cry.PFV IMP-die

However, this is not always the case. Sometimes mid-vowel assimilation is not blocked, as is seen with the verb /juxo/, ‘carry (on head)’ in the following. The reasons for this are not clear and may relate to dialectal variation (see Billington (2017, p. 141)).

(5) ð-j:juxð-rì
     3-carry-VEN

2.4.3 Deletion of glides during reduplication

Reduplication is common in Lopit verbs and is often used to indicate repetition or habitual activity (see section 5.2.5.2). Reduplication is partial; only the first CV syllable of the verb root is reduplicated. An example of reduplication for a Class I verb, /dʊŋa/, ‘go out’, is given in (6) and an example for a Class II verb /ɪŋɔ/, ‘hide’, is given in (7).

(6) 5-dó-dùná xímmá bi dë = ìxòi
     3-REDUP-go.out fire.NOM indeed on = path
     ‘The fire kept going out on the way.’ Ikudo story (32)

(7) xɔjɔ ɔwɔŋ x-o-ŋòt-ú mɔrĩ xɔre
     and.then red monkey.NOM SEQ-3-take-VEN beans.ABS some.F.ABS
     x-3-ì-ŋɔ-ŋɔ̀-á-k dò = kwàn
     SEQ-3-II-REDUP-hide-N-DAT on = body
     ‘And then the red monkey took some beans and hid them on his body.’ Ikudo story (30)

However, if the initial syllable of a root has an onset cluster, i.e. CGV, the glide is lost in the reduplication. This process may be an example of a more general phenomenon in Lopit in which it appears that it is unusual to have more than one consonant cluster in a word. Example (8) illustrates this for the Class II verb /ifwo/, ‘cook’.

(8) a-i-fó-fwó
     1SG-II-REDUP-cook
     ‘I repeatedly cook.’ DK:01:00:49

With some CGV and iCGV verbs, the vowel in the stem changes when the dative suffix is used. For the verb /idja/, ‘burn’, ‘set fire to’, the first person form is [a-idjá]/, ‘1SG-burn’. The dative form is [a-idjé-k], ‘1SG-burn-DAT’. When this form of the verb is used in a
reduplication construction, the segment [dje] is reduplicated, as shown in (9). (The dative marker is discussed in 5.4.3).

(9) a-í-dé-djé-k náŋ täñàn x-á-wù à=xàŋ
1SG-II-REDUP-burn-DAT 1SG.NOM weeds SEQ-1SG-go to = home.ABS
'I kept burning weeds and then go home.' DK: 55:39

2.4.4 Front vowel coalescence

Vowel sequences involving the close-front vowel as the second vowel in the sequence often occur in Lopit, and they are usually produced as diphthongs. Sometimes coalescence of two vowel targets occurs and a monophthongal articulation results. This has been described by Billington (2017, p. 145).

This kind of coalescence is observed on a range of pronominal and aspect inflection markers. The first person plural marker is /ɛɪ-/ (see section 5.3.1). When an aspectual prefix is used, the pronominal marker is realised as [ɛ] or [e]. When the perfective prefix /ŋa-/ is used with the verb /bala/, ‘harvest’, the pronominal marker changes from [ɛɪ] in (10) to [e] in (11). The perfective prefix /ŋa-/ is discussed in section 6.4.2.6.

(10) ɛ́-bálà ijòxoi máná
1PL-harvest.N 1PL.NOM field.ABS
‘We are harvesting the garden.’ DO:15:51

(11) é-ŋà-bál-ù ijòxoi ŋàmà
1PL-PFV-harvest-VEN 1PL.NOM sorghum.ABS
‘We have harvested the sorghum.’ DO:20:19

2.5 Tone

2.5.1 Tonal contrasts

Lopit has three contrastive tones, used to indicate both lexical and grammatical distinctions: High, Falling and Low. The High and Low tones are level tones and the Falling tone transitions from high to low pitch (Billington, 2015, 2017, p. 325). Figure 2-2 shows an example of the averaged fundamental frequency trajectories for high, Falling and Low tones (produced before a low tone in disyllabic words) for an individual speaker.

Within Eastern Nilotic languages generally, there is typically a High and a Low tone, and usually a High-Low falling tone of varying status. In Lopit, the falling tone can occur
contrastively in all word positions but is most frequent word-finally (Billington, 2017, pp. 147–148).

Figure 2-2: Averaged fundamental frequency for tones (Billington, 2017, p. 295)

![Graph showing averaged fundamental frequency for tones](image)

### 2.5.2 Lexical tone

In Lopit, there are some minimal pairs based on tone, for example [lɔ́xɔ̀xɔ́ʔ], ‘thief’, and [lɔ̀xɔ́xɔ́ʔ], ‘shoulders’. However, these do not appear to be very frequent and the minimal pairs are most often different parts of speech (Billington, 2017, pp. 146–147).

The three tonal contrasts can be observed at different places in the word as shown in Table 2-13. These words are all in the absolutive case form (see section 4.4). The tonal contrasts can be observed on both [+ATR] and [–ATR] vowels.

<table>
<thead>
<tr>
<th>Tone</th>
<th>word-initial</th>
<th>word-medial</th>
<th>word-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>márúxí</td>
<td>xàbóx̂ël</td>
<td>lɔ́řǐx̂ʔ</td>
</tr>
<tr>
<td>Fall</td>
<td>mǎřiʔ</td>
<td>xábōjîn</td>
<td>lɔ̀řèwå</td>
</tr>
<tr>
<td>Low</td>
<td>mǎřiŋ</td>
<td>xàbùsìʔ</td>
<td>lɔ̀rűrôt</td>
</tr>
</tbody>
</table>

### 2.5.3 Grammatical tone

Tone is important grammatically and appears to be of greater functional load grammatically than lexically. Tone is used for inflectional case-marking, aspect marking and, to a lesser
extent, in number marking. Affixal morphology is often accompanied by changes in tonal patterns across the word.

There are two cases in Lopit, nominative and absolutive (see sections 4.4 on case marking and 7.3 on the case system) and the distinctions are marked by changes in the tonal pattern across the word. Some examples of the tonal inflection for each case are shown in Table 2-14. Patterns of case marking are highly lexically specific, although there are some tendencies. For example, as illustrated in Table 2-14, the absolutive is often the inverse of the nominative. In addition, the nominative, which is the marked case, has high tones (especially initially) more often than the corresponding absolutive. These patterns are discussed in more detail in section 4.4.

The alternation between neutral/imperfective and perfective for the sub-class (b) of Class I verbs is marked by a change in tonal pattern. Class Ib verbs are those with roots of the form CVCV. These verbs are discussed in section 5.2.1 and their aspect marking is discussed in detail in section 6.4.2.2. The neutral and imperfective are marked by a high tone in the first syllable of the root which changes to a low tone in the perfective. Some examples are given for the first, second and third person in Table 2-15.

Table 2-14: Examples of tonal inflection for both cases

<table>
<thead>
<tr>
<th>nominative</th>
<th>absolutive</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nàŋ</td>
<td>nàŋ</td>
<td>‘1SG pronoun’</td>
</tr>
<tr>
<td>nàŋí</td>
<td>nàŋí</td>
<td>‘his/hers’</td>
</tr>
<tr>
<td>xítèŋ</td>
<td>xítèŋ</td>
<td>‘cow’</td>
</tr>
<tr>
<td>xítò</td>
<td>xítò</td>
<td>‘child’</td>
</tr>
<tr>
<td>lórèwá</td>
<td>lórèwá</td>
<td>‘husband’</td>
</tr>
<tr>
<td>tôxóní</td>
<td>tôxóní</td>
<td>‘person’</td>
</tr>
</tbody>
</table>

There are also some patterns in the tone on the pronominal prefixes in verbs. As is illustrated in Table 2-15, the first and second person singular pronominal prefixes have high tones. For some verbs, in particular inflections, the third person prefixes have low tone rather than high tone. The reasons for this are not yet understood.

Table 2-15: Imperfective and perfective forms for Sub-class Ib verbs

<table>
<thead>
<tr>
<th>verb</th>
<th>imperfective</th>
<th>perfective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1SG</td>
<td>2SG</td>
<td>3SG</td>
</tr>
<tr>
<td>wolo</td>
<td>á-wólò</td>
<td>ī-wólò</td>
<td>ò-wólò</td>
</tr>
<tr>
<td>daxa</td>
<td>á-dáxà</td>
<td>ī-dáxà</td>
<td>ē-dáxà</td>
</tr>
<tr>
<td>bala</td>
<td>á-bálà</td>
<td>ī-bálà</td>
<td>ē-bálà</td>
</tr>
</tbody>
</table>
Tone is also important in other forms of aspect and modality marking. The perfective prefix /ŋa-/ 'PFV', always has a low tone: ː[ŋà]. The irrealis prefix /ŋai-/ 'IRR', always has a falling tone: [ŋaɪ], sometimes realized as [ŋà] due to vowel coalescence. These prefixes are discussed in sections 6.4.2.6 and 6.5.2 respectively. When the perfective prefix /ŋa- is inserted before a Class II stem, the tone is the only way to distinguishing it from the irrealis prefix /ŋai-, as shown (12). Note that, in diphthongs, only the second vowel has tonal marking (see section 1.4.2.3).

(12)   èŋaïdímák     è-ŋaïdím-ák
  3-IRR-build-DAT     3-PFV-build-DAT
  'he would build for'     CG:01:01:42
                        'he has built for'     BS:48:29

Most number marking is realised with suffixes (see section 4.3 on number marking). However, tone alternations can sometimes be used as the sole indication of number category, or in addition to minor segmental differences (e.g. glottal stop), as illustrated in Table 2-16.

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xînèʔ</td>
<td>xînè</td>
<td>‘goat’</td>
<td></td>
</tr>
<tr>
<td>jànî</td>
<td>jànî</td>
<td>‘fruit, tree’</td>
<td></td>
</tr>
<tr>
<td>mûnè</td>
<td>mûnè</td>
<td>‘father’</td>
<td></td>
</tr>
</tbody>
</table>

Some inflectional and derivational patterns correspond with some common tone patterns. For example, the nominalization of verbs generally results in predictable tonal patterns. These are H.H.L.L for singular and H.L.L. for plurals of (i)CVC and (i)CVCV verbs. Examples of agentive and locative nominalisations are shown in Table 2-17. There are some exceptions with Class II verbs. Verbal nominalisation is covered in section 4.5.

<table>
<thead>
<tr>
<th></th>
<th>type</th>
<th>class</th>
<th>root</th>
<th>English</th>
<th>noun SG</th>
<th>noun PL</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>agentive</td>
<td>I</td>
<td>xóbo</td>
<td>‘track’</td>
<td>xáxóbôni</td>
<td>xáxóbìk</td>
<td>‘tracker’</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>kób</td>
<td>‘cut’</td>
<td>xákólôni</td>
<td>xákólôk</td>
<td>‘expert cutter’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>idima</td>
<td>‘build’</td>
<td>xaidîmânî</td>
<td>xaidîmâk</td>
<td>‘builder’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>locative</td>
<td>II</td>
<td>ibiro</td>
<td>‘throw’</td>
<td>leîbíòrì</td>
<td>‘dumping place’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>jëtò</td>
<td>‘sleep’</td>
<td>lejètòrì</td>
<td>‘bedroom’</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>idoŋ</td>
<td>‘appear’</td>
<td>leîdôŋòrì</td>
<td>‘appearing place’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are also regular tone patterns for imperatives (see section 6.6.1 for a discussion of the imperative). The tone patterns for Class I singular imperatives are usually H.L, H.H.L, or
H.H.L.L, depending on the length of the word. The tone patterns for plural imperatives are usually H.L.L and H.H.L.L, depending on the length of the word. Some examples are given in Table 2-18. Note that the tone pattern is determined by the number of syllables in the word and not by the syllable structure of the verb root.

Table 2-18: Singular and plural imperatives for Class I verbs

<table>
<thead>
<tr>
<th>root</th>
<th>singular pattern</th>
<th>plural pattern</th>
<th>English</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>tɔwɔ?</td>
<td>H.L.</td>
<td>Ġtɔwɔ?</td>
<td>H.L.L</td>
</tr>
<tr>
<td>CVC</td>
<td>tɔpɔt</td>
<td>H.L.</td>
<td>‘clean!’</td>
<td>DA:01:02</td>
</tr>
<tr>
<td>CVCV</td>
<td>tɛɾiŋɔ̄</td>
<td>H.H.L.</td>
<td>Ġtɛɾiŋɔ̄</td>
<td>H.H.L.L</td>
</tr>
<tr>
<td>CVCV</td>
<td>tɛfʃiʃe</td>
<td>H.H.L.</td>
<td>Ġtɛfʃiʃe</td>
<td>H.H.L.L</td>
</tr>
</tbody>
</table>

For Class II verbs, the imperative is segmentally the same as the verb stem, but the singular and plural forms have different tonal patterns. Examples are given in Table 2-19. The tone pattern for Class II singular imperatives is the same as for Class I singular imperatives. The tone patterns for the plural imperatives are different.

Table 2-19: Singular and plural imperatives for Class II verbs

<table>
<thead>
<tr>
<th>root</th>
<th>singular pattern</th>
<th>plural pattern</th>
<th>English</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.CG.V</td>
<td>iʃwɔ</td>
<td>H.L.</td>
<td>‘cook’</td>
<td></td>
</tr>
<tr>
<td>i.CG.CV</td>
<td>iŋaʃɔ̄</td>
<td>H.H.L.</td>
<td>Ġiŋaʃɔ̄</td>
<td>H.L.F</td>
</tr>
<tr>
<td>i.CG.CV</td>
<td>iðʒiʃ</td>
<td>H.H.L.</td>
<td>Ġiðʒiʃ</td>
<td>H.L.F</td>
</tr>
<tr>
<td>i.CG.CV</td>
<td>iɾibɔ</td>
<td>H.H.L.</td>
<td>Ġiɾibɔ</td>
<td>H.L.F</td>
</tr>
</tbody>
</table>

In summary, tone in Lopit plays a significant role grammatically. In this section, I have given several examples to illustrate this. However, there is much that is not yet understood. The tonal patterns on verbs resulting from affixation, both inflectional and derivational, require further work. In addition, the role of tone in marking grammatical functions in demonstratives and in other modifiers in the noun phrase also requires further work. It is worth noting that, even in a well-described language like Maa, there are many remaining challenges to the comprehensive understanding of tonal patterns (Rasmussen, 2002, p. 85).

2.6 The Syllable

The syllable structure can be described as (C)(G)V(C). Examples of attested syllable structures are shown in Table 2-20. CV and CVC are the ones most commonly observed. The VC structure is rare (see Billington (2017, p. 158) for a discussion of this).
As shown in Table 2-2 to Table 2-5, all consonants have been observed as syllable onsets apart from the glottal stop /ʔ/; /dː/; and /ɾ/.

The lack of consonant clusters (apart from CG) is observed in the treatment of loan words. The English word ‘school’ is borrowed as /sʊkʊl/, ‘glass’ as /ɡɪlas/ and ‘class’ as /kalas/. There are some consonant sequences found across syllable boundaries, usually as a result of reduplication. Examples of this are found in some ideophones such as /tawaktawak/, 'quickly' (see section 3.2.3 on ideophones).

### Table 2-20: Examples of the main syllable structures

<table>
<thead>
<tr>
<th>syllable example</th>
<th>English</th>
<th>syllable example</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>V à</td>
<td>‘to’</td>
<td>CGV ð.fwó</td>
<td>‘3.cook’</td>
</tr>
<tr>
<td>VC xô.it</td>
<td>‘bones’</td>
<td>CVC xâŋ</td>
<td>‘village’</td>
</tr>
<tr>
<td>CV xô</td>
<td>‘with’</td>
<td>C:VC ñ.tôk</td>
<td>‘3.kill’</td>
</tr>
<tr>
<td>C:V a:j:ò</td>
<td>‘1SG.cry’</td>
<td>CGVC kwan</td>
<td>‘body’, ‘self’</td>
</tr>
</tbody>
</table>

Although not very common, there are a small number of examples of vowel sequences across syllable boundaries. Some of these examples are shown in Table 2-21. Billington (2017, p. 158) notes that, in these cases, the vowels are clearly distinct syllable nuclei and qualitatively different from diphthongs and vowel-glide-vowel sequences. She also notes that, with reference to cross-dialectal data from Stirtz (2014), that it is possible that some vowel-vowel sequences have arisen via consonant elision.

### Table 2-21: Examples of words with vowel sequences

<table>
<thead>
<tr>
<th>syllable example</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>V à.f.ná</td>
<td>‘today’</td>
</tr>
<tr>
<td>fà.l.i.ti</td>
<td>‘ebony tree’</td>
</tr>
<tr>
<td>VC ñ.tôk</td>
<td>‘ostrich’</td>
</tr>
<tr>
<td>xô.it</td>
<td>‘bones’</td>
</tr>
</tbody>
</table>

The syllable structure has an influence on morphology, where the choice of allomorph can be determined by the syllable structure. This is common in Nilotic languages and is discussed by Dimmendaal (2018, p. 10). It occurs in Lopit in the aspect marking on verbs where the aspect marker depends on the structure of the verb root (e.g. (i)CVC or (i)CVCV). This is discussed in section 5.2.2 on the verb root structure and in section 6.4.2 on aspect marking. In addition, the syllable structure of the noun root may also be relevant to selection of number marking suffixes. This is discussed in section 4.3.2.
2.7 Orthography

There is no official orthography for the Lopit language. A number of working orthographies have been used by those working with the written language (see Ladu, Nartisio, Bong, Odingo, & Gilbert, 2014b; Turner, 2001). A working orthography is used by the communities with whom I have been working. This orthography does not indicate tone or the ATR vowel quality and is shown in Table 2.22 in comparison with the IPA value for each segment. This orthography is used in the stories and narratives transcribed in the Appendix.

<table>
<thead>
<tr>
<th>phoneme</th>
<th>grapheme</th>
<th>phoneme</th>
<th>grapheme</th>
<th>phoneme</th>
<th>grapheme</th>
<th>phoneme</th>
<th>grapheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>p</td>
<td>/m/</td>
<td>m</td>
<td>−ATR</td>
<td>+ATR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/b/</td>
<td>b</td>
<td>/n/</td>
<td>n</td>
<td>/a/</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/t/</td>
<td>t</td>
<td>/nː/</td>
<td>nn</td>
<td>/ɛ/</td>
<td>e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/tː/</td>
<td>tt</td>
<td>/nː/</td>
<td>nn</td>
<td>/i/</td>
<td>i</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/d/</td>
<td>d</td>
<td>/ɲ/</td>
<td>ng</td>
<td>/o/</td>
<td>o</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/dː/</td>
<td>dd</td>
<td>/o/</td>
<td>u</td>
<td>/u/</td>
<td>u</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/k/</td>
<td>k</td>
<td>/ɾ/</td>
<td>rr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ɡ/</td>
<td>g</td>
<td>/ɾ/</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/c/</td>
<td>c</td>
<td>/l/</td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ɟ/</td>
<td>j</td>
<td>/lː/</td>
<td>ll</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ʃ/</td>
<td>f</td>
<td>/jː/</td>
<td>y, i</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/s/</td>
<td>s</td>
<td>/ʃː/</td>
<td>yy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/x/</td>
<td>h</td>
<td>/w/</td>
<td>w, u</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/ʔ/</td>
<td>-</td>
<td>/wː/</td>
<td>ww</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3  Word Classes

3.1 Introduction

In this chapter, I introduce the range of word classes observed in Lopit. The categories of nouns and verbs are relatively clear in Lopit. The categories of adjectives and adverbs are less clear as most property concepts and adverbial notions are expressed using verbs.

Nouns, verbs and ideophones are the only open word classes. All other word classes are closed. Some of the closed classes, such as pronouns and demonstratives, are closed because they consist of function words and hence they are most unlikely to add new members. Others, such as (what I am calling) true adjectives and adverbs, have a very limited membership and the semantic concepts of nominal and verbal modification are most commonly expressed with verbs.

Those word classes which are covered in detail elsewhere (such as nouns, verbs, pronouns and demonstratives) are only briefly discussed in this chapter. The other word classes (such as ideophones and prepositions) are discussed in more detail in this chapter.

3.2 Open word classes

3.2.1 Nouns

Nouns in Lopit show number and gender agreement and are marked for case. There are two genders, masculine or feminine. Most nouns are generally not marked overtly for gender. Gender is indicated by agreement marking on demonstratives, relative pronouns and possessives. Gender is discussed in detail in section 4.2.

Lopit nouns follow a tripartite system of number marking comprising singulative, plural and replacement marking. This is common amongst Nilo-Saharan languages. Number and number marking are discussed in section 4.3.

There are two cases in Lopit and these are termed nominative and absolutive. Lopit is a marked nominative language. Case marking is based on tonal distinctions and is discussed in section 4.4. Nominalisation of verbs is very common in Lopit and this is discussed in section 4.5.
3.2.2 Verbs

Lopit has a rich system of verbs and there are many inflectional and derivational possibilities. Verbs can be marked for person and number of the subject and of the object (when the latter is a discourse participant). Verbs are also marked for aspect, mode and voice. The interrogative, imperative and sequential are expressed with prefixes. There are a number of derivational affixes including causative, applicative, instrumental and motion to and from the speaker. Verbs are discussed in detail in Chapters 5 and 6.

There are two classes of verbs, one which is characterised by a root-initial close front vowel (Class II) and the other which contains the remainder (Class I). The verb class can influence the form of the inflection, e.g. for the imperative and for aspect. In addition, verbs fall into different sub-classes, depending on their syllable structure. For example, Class I verbs of the form CVC have different aspect marking to Class I verbs with the structure CVCV. This is discussed in section 6.4.2.

Verbs can also be classified into ‘active’ and ‘stative’ categories (Schachter & Shopen, 2007, p. 11). In Vendler’s terms, active verbs express ‘activities’, ‘accomplishments’ and ‘achievements’\(^\text{13}\). Stative verbs denote “states of affairs conceived as having an indeterminate extent in time” (Schachter & Shopen, 2007, p. 11). However, it is possible to sub-divide the category of stative verbs and this has particular relevance to Lopit. In this grammar, I distinguish two types of stative verbs (see Dixon (1982, p. 50)). There are some states that express ‘property concepts’ and some states that are the result of some kind of cognitive activity or previous event. Those verbs that express property concepts (e.g. colour, size and shape) are described here as ‘property stative verbs’. The latter type of stative verb, which I call ‘result state’ verbs, includes such verbs as ‘know’, ‘understand’, ‘like’ and ‘hate’. These stative verbs, unlike property stative verbs, can be intransitive and/or transitive.

Property stative verbs are important in that they are used in relative clause constructions as the most common way of expressing property concepts and adverbial notions. These are discussed in detail in Chapter 8. The distinction between property stative verbs and result state verbs is also important as there are significant differences in formation of inchoative and ventive constructions, depending on whether the verb is of the property or the result type. These are discussed in section 6.4.4.1.

\(^{13}\) See Dowty (1979, pp. 51–71)
3.2.3 Ideophones

Ideophones are very widely used in African languages and have been described as a “lexicalization of the expressive function”….“with close ties to context” (Childs, 2003, p. 118). They have also been described as “a verbalized imitation of extra linguistic events or situations” (Kilian-Hatz, 2001, p. 155).

Ideophones in Lopit are distinguished from other words in several ways. They often expressed with a raised pitch; reduplication is very common; they are usually expressed at the end of the utterance, often offset from the rest of the utterance; and the translation can be inexact or even not feasible.

They are widely used in story telling in Lopit. The following examples come from one of the squirrel stories in which the squirrel tricks the leopard. The squirrel rolls successively larger stones onto the leopard. The first time, the stones are small and finally the stone (or rock) is large enough to kill the leopard. Each of the three sets of stones has a different description. The rolling of first set of stones is described in the following example.

(13) xɔ̃ɔ̃ ikudò x-o-itì-tfò-k tutul tutul dus
and.then squirrel.NOM SEQ-3-CAUS-roll-DAT IDEO
‘So the squirrel rolled “tutul tutul dus”.’ Squirrel story (67)

The descriptions of the three sets of stones (or rocks) are compared in the following examples and are successively longer as the stones get bigger.

(14) tutul tutul dus titik, titik, dum titiin, titiin, titiin, duuuum
with small stones with somewhat larger stones with large rocks
Squirrel story (67) to (70) DX:31:47

The consultants said that there is a common understanding of these sounds and that people would associate the particular sounds with the relative stone size. “Everyone is told these stories from a very young age...the sound would definitely be the same for everyone.” (DX: 33:02). These sounds are an integral part of the story and are generally only used for stones rolling. As one consultant said, “they don’t have any meaning...it’s just a description of sound” (DX:31:47).

Some ideophones have a broader application than just in narratives. They are also used in descriptions, such as in the following utterance about the time that the village of Losharuk burnt down. The expression [fiàr fiàr fiàr] is a “description of flames going up” (DX:50:57). It is normally “just used with flames” (DX:54:32).
Dingemanse defines ideophones as “marked words that depict sensory imagery” (2012, p. 655). He uses the termed “marked” to indicate that they stand out from other words. He uses the term “depict” to indicate that the use of an ideophone is a kind of performance which *depicts* the intended meaning rather than *describing* it. Reduplication and expressive force is usually part of the performance (Dingemanse, 2012, p. 655). Lopit ideophones meet this definition.

Dingemanse has found that ideophones are widely used in Siwu in everyday speech as well as in stories and dramatic speech styles (2012, p. 665). Something similar appears to be the case in Lopit. Ideophones are sometimes used in the same way as adverbs. In the following example, the expression [tàwáktàwák] modifies the verb /lot/, ‘go’, ‘walk’.

(15) e-dákxà-ì xáng nà=Lìʃárik fiàr fiàr fiàr
    3-consume-VEN fire.NOM village.ABS of.F=Losharuk IDEO
    ‘Fire consumed the village of Losharuk “fiar fiar fiar”.’ DX:50:27

Dingemanse defines ideophones as “marked words that depict sensory imagery” (2012, p. 655). He uses the termed “marked” to indicate that they stand out from other words. He uses the term “depict” to indicate that the use of an ideophone is a kind of performance which *depicts* the intended meaning rather than *describing* it. Reduplication and expressive force is usually part of the performance (Dingemanse, 2012, p. 655). Lopit ideophones meet this definition.

Dingemanse has found that ideophones are widely used in Siwu in everyday speech as well as in stories and dramatic speech styles (2012, p. 665). Something similar appears to be the case in Lopit. Ideophones are sometimes used in the same way as adverbs. In the following example, the expression [tàwáktàwák] modifies the verb /lot/, ‘go’, ‘walk’.

(16) ò-lót īnē tàwáktàwák à=xáng
    3-walk 3SG.NOM quickly to=village.ABS
    ‘She walked quickly to the village.’ AR:01:32:00

These kinds of ideophones do not always follow the behaviour described by Childs and Dingemanse above. Ideophones are usually placed at the end of the clause. However, the expression [tàwáktàwák] in (16) is placed between the subject, [īnē], and the prepositional phrase, [à=xáng]. Here, it lacks some the performance aspect of the ideophones described above (e.g. pitch is not raised, less animated expression). In addition, these kinds of ideophones can be used in a wide variety of situations. They are not always used with reduplication, as shown in (17).

(17) ë-ŋë-ù tàwák
    3-run-VEN quickly
    ‘He runs quickly.’ AR:01:50:15

It could be that there is a group of words which is in a transition between the ‘category’ of ideophones and the ‘class’ adverbs. I use the term ‘adverbial ideophones’. A list of some of the common adverbial ideophones is given in Table 3-1. This topic is further discussed in section 8.3 on the expression of adverbial notions.

Although I only have a limited number of examples, there could be another group of words which could be regarded as a variant of the general ideophones which are described above. This group contains words which are used as intensifiers or adverbs of degree. There is a word /tirtir/ which conveys the sense of ‘in the dark’ (e.g. a dusk). When the unreduplicated
form /tir/ is used, as in (18), it intensifies the sense of darkness which is already present in
the verb /riok/, ‘dark’, black’.

<table>
<thead>
<tr>
<th>ideophone</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>tawák (tawák)</td>
<td>‘fast’, ‘quickly’</td>
</tr>
<tr>
<td>dódó (dódó)</td>
<td>‘fast’, ‘quickly’</td>
</tr>
<tr>
<td>gà, gà:</td>
<td>‘slowly’</td>
</tr>
<tr>
<td>dè, dè:</td>
<td>‘slowly’</td>
</tr>
<tr>
<td>tir tir</td>
<td>‘in the dark’</td>
</tr>
<tr>
<td>tül</td>
<td>‘bad-smelling’</td>
</tr>
</tbody>
</table>

(18) è-rìðìk tir
3-be.dark dark
‘It is very dark.’ AV:40:18

Another example is the word /bìŋ/ which is only used with the verb /bwor/ in the
expression [òbwór bìŋ], ‘it is pure white’. Words like /tir/ and /bìŋ/ cannot be used as
general adverbs of degree like /bìnoʔ/, ‘very’, and /kaiʔ/, ‘a little’. They are only used with
specific stative verbs (like /riok/ and /bwor/). In this way, they differ from other adverbs
of degree, which are discussed in section 8.3.1.3. This topic is worthy of further research,
given the interest in ideophones in African linguistics.

### 3.3 Closed word classes

#### 3.3.1 Pronouns

Lopit has a variety of pronouns, including personal, possessive, demonstrative (spatial and
temporal), relative and interrogative pronouns. It also has the word /ni/ which I describe
as a dummy pronoun. The various pronouns are discussed in separate sub-sections of this
section.

Note that Lopit does not have reflexive pronouns. Reflexivity is usually expressed with the
word /kwan/, ‘self, body’, as illustrated in (40). This is discussed further in section 7.5 on
reflexives and reciprocals. Note that the possessive pronoun /nì/ is normally combined with
the possession marker /na/ (or /lc/) to form the pronominal possessive marker [nàŋìʔ\/], ‘his’.
This is discussed in section 4.6.5.2.
3.3.1.1 Personal pronouns

Lopit distinguishes first, second and third person pronouns in singular and plural. Tone is used to distinguish nominative (NOM) and absolutive (ABS) case for pronouns (see section 4.4 for a discussion of case marking). The personal pronouns are shown in Table 3-2. The possessive pronouns are also shown in the same table and are discussed in detail in section 4.6.5.

Lopit does not mark male and female gender in the pronouns although it sometimes does for nouns (see section 4.2 below). Pronouns do trigger gender agreement. The third person pronoun, /ɪɲɛ/, can be translated as ‘he’, ‘she’ or ‘it’. This contradicts Greenberg’s proposed universal 43 that “if a language has gender categories in the noun, it has gender categories in the pronoun (Greenberg, 1963, p. 113)”. Nevertheless, this contradiction is common amongst Nilotic languages (Dimmendaal, 1983b, p. 207).

<table>
<thead>
<tr>
<th>Table 3-2: Personal pronouns in Lopit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>number</strong></td>
</tr>
<tr>
<td>person</td>
</tr>
<tr>
<td>NOM pronoun</td>
</tr>
<tr>
<td>ABS pronoun</td>
</tr>
<tr>
<td>ABS possessive</td>
</tr>
</tbody>
</table>

Quite often, the pronouns are used with the suffix /-ja/ or /-ijja/. This appears to provide more emphasis or prominence. The following question, in (20), might be asked by someone who was expecting more respect (e.g. an uncle to his nephew).

(20) x-í-mòr ịjè nàŋjá?
    Q-2-insult.N 2SG.NOM 1SG.ABS
    ‘Did you (really mean to) insult me?’ CO:40:32

On the other hand, if the speaker and hearer were in a peer relationship, one might expect example (21).

(21) x-í-mòr ịjè nàŋ?
    Q-2-insult.N 2SG.NOM 1SG.ABS
    ‘Did you insult me?’ CO:41:25
The consultant said that “[nàŋjíː] might be more emphatic, for emphasis or put some authority there” (CO:34:30), as shown in the following, where the subject is placed in front of the verb. The suffixes /-ja/ or /-ja/. could be related to the morpheme /ja/ or /ja/, which is used a general emphatic particle (see section 3.3.6).

(22) nàŋjíː l-á-jò
1SG.ABS SBO-1SG-say.PFV
'Tm the one who said it.’ or ‘I said it.’ CO:33:24

Nevertheless, it appears that the pronoun /ɪɲɛja/ is not pragmatically marked for some speakers. A brief analysis of several of the stories told by two speakers indicated that, for the third person singular pronoun, /ɪɲɛja/ was more common (with 40 occurrences) than /ɪɲɛ/ (10 occurrences). There did not seem to be any particular pragmatic difference in the use of the pronouns in these stories.

### 3.3.1.2 Demonstrative pronouns

Lopit has a range of demonstrative pronouns and these are discussed in section 4.6.4. Lopit has three types of spatial demonstratives which agree in gender, number and case with their referent. The case marking is presented in section 4.6.4. The demonstratives can be distinguished on the basis of the relative position of speaker, hearer and referent. They are listed in Table 3-3 and discussed in section 4.6.4.1.

#### Table 3-3: Spatial demonstrative pronouns (absolutive case)

<table>
<thead>
<tr>
<th></th>
<th>near speaker</th>
<th>near hearer</th>
<th>away from both speaker and hearer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>long</td>
<td>short</td>
<td>long</td>
</tr>
<tr>
<td>SG</td>
<td>F</td>
<td>in:àŋ</td>
<td>in:á</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>il:ëŋ</td>
<td>il:é</td>
</tr>
<tr>
<td>PL</td>
<td>F</td>
<td>xùnáŋ</td>
<td>xùná</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>xùl̄gŋ</td>
<td>xùl̄g</td>
</tr>
<tr>
<td>English</td>
<td>‘this’</td>
<td>‘that’</td>
<td>‘that’</td>
</tr>
</tbody>
</table>

Lopit also has a set of temporal demonstrative pronouns which are derived from temporal adverbs. The demonstratives are distinguished on the basis to temporal reference: immediate past (‘earlier in the day’); recent past (‘yesterday’, ‘last few days’); or remote past (‘some time ago’). They are listed in Table 3-4 and discussed in section 4.6.4.2. An example is given in (23).
3.3.1.3 Interrogative pronouns

There are interrogative pronouns (or question words), some of which show gender and number agreement. They are listed in Table 3-5 and Table 3-6 and are discussed further in section 7.7.

<table>
<thead>
<tr>
<th>adverb</th>
<th>ara</th>
<th>Nol?</th>
<th>ifa</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>nara</td>
<td>nəŋəl?</td>
<td>nafa</td>
</tr>
<tr>
<td>G</td>
<td>lara</td>
<td>ḥəŋəl?</td>
<td>lefa</td>
</tr>
<tr>
<td>P</td>
<td>xunara</td>
<td>xunəŋəl?</td>
<td>xunəlfə</td>
</tr>
<tr>
<td>L</td>
<td>xulara</td>
<td>xuləŋəl?</td>
<td>xuleifa</td>
</tr>
<tr>
<td>English</td>
<td>‘that (earlier)’ ‘that (yesterday, recently)’ ‘that (some time ago)’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3.1.4 Relative pronouns

There are relative pronouns which show gender and number agreement. There are two groups of relative pronouns and they are listed in Table 3-7. The relative pronouns listed in the first two rows are the ones usually used and I denote them as unmarked. The relative pronouns in the latter two rows are used when the conversation participants have a shared knowledge of the referent of NP_rel. Relative pronouns are discussed further in section 9.5.1. The relative pronouns in the bottom two rows of Table 3-7 are discussed in section 9.5.4.
Table 3-7: Relative pronouns

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>use</th>
</tr>
</thead>
<tbody>
<tr>
<td>masculine</td>
<td>lè</td>
<td>lè, xölè</td>
<td>unmarked</td>
</tr>
<tr>
<td>feminine</td>
<td>nà</td>
<td>nàŋ, xónà</td>
<td></td>
</tr>
<tr>
<td>masculine</td>
<td>ʃlè</td>
<td>xólɔ</td>
<td>When the conversation participants have a shared knowledge of the referent of NP_{rel}</td>
</tr>
<tr>
<td>feminine</td>
<td>ʃnlà</td>
<td>xónà</td>
<td></td>
</tr>
</tbody>
</table>

Some prototypical examples of the use of relative pronouns are given in (24) and (25). Example (24) contains a relative clause with a activity verb (the RC is in square brackets). Example (25) contains a relative clause with a property stative verb, which is the most common way of expressing property concepts in Lopit. Relative clauses are discussed in section 9.5 and property concepts are discussed in section 8.2.

(24) tàxú diktór [lè l-ɛ̀-máŋá dè jùbà] where doctor REL.M SBO-3-live in Juba

‘Where is the doctor who lives in Juba?’ EL:28:09

(25) á-wóló náŋ xító nà l-ɛ-ìságá

1SG-see.IMPV 1SG.NOM child.ABS REL.F SBO-3-be.tall

‘I saw the tall girl.’ (lit ‘I saw a girl who is tall.’) BE:43:30

The morphemes /nà/, /lɛ̀/, /xønà/ and /xølɛ̀/ can also be used as possession markers. They can be translated as ‘of’ and they show agreement for gender and number with the possessor. Examples (26) and (27) show the singular forms for feminine and masculine respectively. Examples (28) and (29) show the plural forms for feminine and masculine respectively. The gender of nouns is discussed in section 4.2 below.

(26) eí-wóló fjóxɔi xàjì nà xálråŋ lià 1PL- see.N 1PL.NOM house.ABS of.F man.ABS that.M

‘We see the man’s house.’ BT:43:21

(27) li:ɛŋ xårɛmòni lè tɔmé this.M.COP spearer.ABS of.M elephant.ABS

‘This is the elephant spearer.’ BT:01:39

(28) ò-mük íŋɛ ʃxísŋ xõnà àkårà 3-raid.N 3SG.NOM cattle.ABS of.F.PL Toposa

‘He raided Toposa cattle.’ CA:43:30
I classify the possession markers as pronouns rather than prepositions as they have the same form as the relative pronouns and (unlike prepositions) they agree in number and gender with their head noun. They could be translated as ‘which belongs to’ or ‘which is associated with’ as this indicates that they are modifying the possessum. The possession markers might have originated as some kind of relative clause construction.

3.3.1.5 /ni/, a dummy pronoun

The word /ni/ is used as a dummy pronoun. It is only used with some stative (meteorological) verbs like /riok/, ‘be dark’; /fuda/, ‘be sultry’; /waŋ/, ‘be bright, sunny’; /ilik/, ‘be cold’ and /nok/, ‘be hot’. Some examples are given in (30) and (31).

(30) è-rfôxó nì
3-be.dark it
‘It’s dark.’ DW:27:52

(31) á-mát náŋ bálú l-ô-nök nì
1SG-drink.N 1SG.NOM beer.ABS SBO-3-be.hot it
‘I drink beer when it’s hot.’ BW:28:21

The word /ni/ is generally used to refer to the local environment of the discourse participants (e.g. the weather or the local environment), as is illustrated in the examples above. It can also be used in a special construction with the stative verb /boró/, ‘be big’, where there does not seem to be any reference to nature or the local environment.

(32) ò-bárò nì
3-be.big it
‘It’s enough’ or ‘We’ve had enough.’ DW:36:21

It is not used with the verb /sa/, ‘rain’ in an example like (33). The verb /sa/ is a transitive verb and is illustrated in (34), where the literal translation is ‘The rain rained for a week’.

(33) *á-mát náŋ bálú l-ô-sá nì
1SG-drink.N 1SG.NOM beer.ABS SBO-3-rain it
Attempted: ‘I drink beer when it rains.’ BW:29:19

(34) è-sá xàfì? isàbit nàboîtè
3-rain rain.NOM week one
‘It rained for a week.’ BE:10:58
3.3.2 Prepositions

There are a number of different types of prepositions in Lopit. These can be classified as true prepositions and compound prepositions. These will be discussed separately. Prepositions are used in prepositional phrases which are discussed in section 4.7.

3.3.2.1 True prepositions

Prepositions are “words that can express locative and relational senses without forming complex phrasal units [with other prepositions]” (Noonan, 1992, p. 107). There is a relatively small closed class of prepositions in Lopit. They are listed in Table 3-8 together with their English translations and the main ways in which they are used. Some of the prepositions have a range of functions.

<table>
<thead>
<tr>
<th>preposition</th>
<th>use</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>dē</td>
<td>location, movement</td>
<td>‘at’, ‘on’, ‘in’, ‘to’</td>
</tr>
<tr>
<td>à</td>
<td>goal</td>
<td>‘to’, ‘towards’</td>
</tr>
<tr>
<td>tè</td>
<td>instrument</td>
<td>‘with’</td>
</tr>
<tr>
<td>tè</td>
<td>source</td>
<td>‘from’</td>
</tr>
<tr>
<td>xò</td>
<td>accompaniment</td>
<td>‘with’</td>
</tr>
<tr>
<td>ìjá</td>
<td>manner</td>
<td>‘like’, ‘as’</td>
</tr>
</tbody>
</table>

Prepositions undergo vowel harmony and mid-vowel assimilation with their dependent noun. This is shown with /tɛ/ ~ [to] in (35). On this basis, they could be said to either cliticise with or form a prefix with the noun or pronoun they introduce. As shown in (36), it is possible to have a question word (in this case /nari/, ‘which’) between the preposition and the noun. This suggests that the process is cliticization rather than affixation, and this is how I have glossed the prepositions and the nouns with which they are associated.

(35) í-nà l-è-rũk ɲà-jiŋ-ù tò=xúnóṁ
    not.be SBO-3-want INF-go.through-VEN from =cave.ABS
    ‘He doesn’t want to come out of the cave.’ BA:37:13

(36) à náři xàjì l-è-jìŋ-àk xàbù
to which house.ABS SBO-3-go.through-DAT chief.NOM
    ‘Which house did the chief enter?’ DH:28:51

Prepositions can also undergo elision, as in [leiti] to [lit] in (37). This is discussed further in section 4.6.5.2.
This preposition is widely used and is usually associated with location or movement. Examples (38) to (40) have static interpretations; i.e. ‘on’, ‘at’, ‘in’, respectively. Examples (41) to (44) have dynamic interpretations; i.e. ‘into’, ‘in’, ‘on’, ‘onto’, respectively.

3.3.2.1.1 /de/, ‘at’, ‘on’, ‘in’, ‘to’

The preposition /de/ is used to encode a number of thematic roles. These include instrumental (‘with’), which is illustrated in (45), and source (‘from’), which is illustrated in
(46) to (48). Note that /tɛ/ is distinguished from /de/ (Billington, 2017, p. 140), although, in normal speech, this difference can be difficult to perceive.

(45) á-iwúsó náŋ jài tè = kùbajà mánó
1SG-drink 1SG.NOM tea.ABS with = cup.ABS this.ABS
‘I drink tea with this cup.’ AR01:13:51

(46) e-fit tóxóni lia xítě tè = xóftè
3-tie person.NOM that.M cow.ABS with = rope.ABS
‘That man tied (up) the cow with rope.’ BC08:20

(47) á-wú náŋ tè = xàŋ nàítí à = xàŋ nàínó
1SG-go 1SG.NOM from = house.ABS my.F to = house.ABS your.F
‘I’m going from my house to your house.’ AQ01:24:00

(48) á-ŋér ýnê tè = xify nà máñá à = xàŋ
1SG-run.N 3SG.NOM from = middle of field.ABS to = house.ABS
‘I ran home from middle of the field.’ DW01:36

The preposition /tɛ/ is also used in prepositional phrases with a noun expressing time, where it can be translated into English as ‘in’ or ‘at’. It is often used in stories or narratives in expressions which locate the event time, as illustrated with the two examples in (49) and the one in (50).

(49) ífá tò = móité?
PST in = morning
‘In the morning (some time ago)’

(50) tè krísmās è-mèt-íni xífó tè = toun à = xàŋ
at Christmas 3-go.in.numbers-VEN people.NOM from = town to = village.ABS
‘At Christmas, people gather from the town to the village.’ BE:31:54

Sometimes /tɛ/ can also be used to indicate location. This has only been observed in verbless locative predicate constructions, as shown in (51) (see section 7.6 for more information on verbless constructions). This can be contrasted with verb-based constructions where /de/, ‘at’, is used, as in (52).

(51) il:ŋe ínê tè = xàŋ
this.M 3SG.NOM at = home.ABS
‘He is (there) at home.’ DH:01:05:18

47
3.3.2.1.3 /a/, ‘to’, ‘towards’

This preposition is always associated with motion and can be translated into English as ‘to’, ‘towards’ and ‘into’.

(52) ò-w:ón lɔ̃xidɔ̀ŋ dē = xàŋ
   3-be Lohidong.NOM at = home.ABS
   ‘Lohidong is at home’. DH:01:04:51

3.3.2.1.4 /xɔ/, ‘with’ (accompaniment, comitative)

The morpheme /xɔ/ can best be described as a preposition with indicating accompaniment and can be translated as ‘with’. Some examples are given in (55) and (56). Lopit is a strongly WITH-language rather than an AND-language (Stassen, 2000). This is discussed in more detail in section 9.3. Thus, while example (55) can be translated ‘he speared a buffalo and a leopard’, the literal translation is ‘he speared a buffalo with a leopard’. Example (56) is similar.

(53) è-métá-rì xìjó à = xàŋ
   3PL-go.in.numbers-IT people.NOM to = village.ABS
   ‘People are going (in large numbers) to the village.’ BE:35:56

(54) e-írwát-á àw:ón à = tim
   3-run.away-IPFV monkey.NOM to = forest.ABS
   ‘The monkey ran (away) into the forest’. BR:17:19

(55) ã-rá xàlâŋ l-ò-ŋéré è-rém xàsowàn xɔ = xiwàrò
   3-be person.NOM SBO-3-be.brave 3-spear buffalo.ABS with = leopard.ABS
   ‘The man is brave. He speared a buffalo and a leopard.’ CL:46:25

(56) e-idírítá lɔ̃xidɔ̀ŋ xɔ = ibàlà
   3-elope Lohidong.NOM with = Ibala.ABS
   Lohidong eloped with Ibala (Lohidong and Ibala eloped).’ BD:12:25
3.3.2.1.5 /iːjːa/, ‘like’

The word /iːjːa/ is used to express comparisons and it combines with a noun to form a prepositional phrase, as shown in the following examples with [iːjːa lɔ̀bɔ̀ŋ], ‘like Lobong’ and [iːjːa njɔ́rwɔ́], ‘like women’.

(57) ɗ-wːõn iːjːa=lɔ̀bɔ̀ŋ lɛlìɔ
3-exist like=Lobong.ABS that.M.ABS
‘That (person) is like Lobong’. AV:11:44

(58) ɗ-bɔ́rɔ̀ xoɗɔ́tì tájì-á ɲá l-e-icɛl-à iːjːa=njɔ́rwɔ́
3-be.big men.ABS heart-PL not.be SBO-3-resemble-IPFV like=women.ABS
‘Men have strong hearts, not like women’. Lobiliwari story EL:45:37

Note that the word /ara/ is also used to express comparisons. It is often shortened to /a/. It is glossed in (59) as ‘like’, although it may be a form of the verb /ra/, ‘be’.

(59) kʊrã nà ɗ-wːõn arà ɗɛfɛf
ball REL.F SBO-3-exist like gourd
‘a ball which is like a gourd’ BF:28:24

3.3.2.2 Compound prepositions

Some prepositions can combine or compound with other prepositions, adverbs and/or the verb /ra/, ‘be’, to form a new preposition, called ‘compound prepositions’ (McMichael, 2006, p. 43). In my data, there are combinations or cliticised groupings of /a/, ‘to’; /de/, ‘on’; /te/, ‘from’; /xɔ́/, ‘with’; and the verb /ra/, ‘be’.

3.3.2.2.1 /adaxɔ́/, ‘towards’

This word is formed from a combination of /a/, ‘to’; /da/, ‘there’; and /xɔ́/, ‘with’; and can be translated as ‘towards’. i.e. ‘in the direction of’, without necessarily reaching the targeted person, object or place.

(60) i-iɓír-ú kʊrã ɗàdaxɔ̀ nàŋ
IMP-throw-VEN ball.ABS towards 1SG.ABS
‘Throw the ball to me.’ BR:02:56

(61) ɗ-wú nɔ-ídɔŋ-ɔ-k nàŋ mɔ́rwɔ́ ɗàdaxɔ́=xǐŋɔ́xǔ
3-go INF-throw-N-DAT 1SG.ABS stone.ABS towards=dog.ABS
‘He’s going to throw a stone at the dog for me.’ CY:30:13
This word is a combination of /tara/, ‘thence’, ‘from there’, and /xɔ/, ‘with’. It is often shortened to /taxɔ/. It could be that /tara/ is a combination of /tɛ/, ‘from’ and /a-ra/, ‘3-be’. It is only used with people, as shown in (62). The preposition /tɛ/, ‘from’, is used for places, as shown in (63) and discussed in 3.3.2.1.2 above.

(62) té-láx-inì xísùŋ táxɔ = lìxìdìŋ
IMP-release-VEN cattle.ABS from = Lohidong
“Get back the cattle from Lohidong!” DJ:21:41

(63) té-láx-inì xísùŋ tè = bɔrè
IMP-release-VEN cattle.ABS from = stable.ABS
“Get back the cattle from the stable!” DJ:33:37

3.3.3 Conjunctions

3.3.3.1 Lopit conjunctions

There are a limited number of conjunctions in Lopit. The most common ones are grammaticalised forms of verbal constructions. They still exhibit some verbal characteristics, such as person and number agreement and have an influence on word order. These conjunctions are listed in Table 3-9 and are shown with the glossing that reflects their verbal characteristics. The table also shows other conjunctions and lists the sections of Chapter 9 where they are discussed in detail.

<table>
<thead>
<tr>
<th>word</th>
<th>morphemes</th>
<th>gloss</th>
<th>English</th>
<th>section</th>
</tr>
</thead>
<tbody>
<tr>
<td>xɔɔ</td>
<td>x-ɔ-ɔ</td>
<td>SEQ-3-say</td>
<td>‘and then’</td>
<td>9.2.2.3</td>
</tr>
<tr>
<td>lɔɔ</td>
<td>l-ɔ-ɔ</td>
<td>SBO-3-say</td>
<td>‘if’, ‘when’</td>
<td>9.6.2.2</td>
</tr>
<tr>
<td>xɔɔ</td>
<td>x-ι-ɔ</td>
<td>SEQ-2-say</td>
<td>‘because’</td>
<td>9.6.5</td>
</tr>
<tr>
<td>lefe</td>
<td></td>
<td></td>
<td>‘since’, ‘until’</td>
<td>9.6.2.4</td>
</tr>
<tr>
<td>nafa</td>
<td>na-ifɔ</td>
<td>of.F-PST</td>
<td>‘when’, ‘in the past’</td>
<td>9.6.2.3</td>
</tr>
<tr>
<td>na</td>
<td></td>
<td></td>
<td>‘so’</td>
<td>9.6.6</td>
</tr>
</tbody>
</table>

3.3.3.2 Loaned conjunctions

There are some loaned conjunctions, mainly from Juba Arabic. These are shown in Table 3-10. These are relatively common, and the table lists the sections where these conjunctions are discussed.
Table 3-10: Loaned conjunctions in Lopit

<table>
<thead>
<tr>
<th>conjunction</th>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>asan, ajan</td>
<td>‘ashan’</td>
<td>‘because’</td>
</tr>
<tr>
<td>laxade</td>
<td>‘lahadi’</td>
<td>‘until’</td>
</tr>
<tr>
<td>ilei</td>
<td>‘ilei’</td>
<td>‘unless’</td>
</tr>
<tr>
<td>lakin</td>
<td>‘lakiin’</td>
<td>‘but’</td>
</tr>
<tr>
<td>wele</td>
<td>‘wala’</td>
<td>‘or’</td>
</tr>
</tbody>
</table>

9.2.3.3
9.6.2.4
9.7.4
9.2.3.2

3.3.4 Adjectives

There are several ways of expressing property concepts in Lopit. These are discussed in detail in section 8.2. The most common way is through the use of stative verbs in relative clauses. An example is given in the following.

(64) a-įj:én náŋ tɔxɔnì lɔ l-ɔ-ɔ
1SG -know 1SG.NOM person.ABS REL.M SBO-3-be.red
‘I know a man who is red.’ AV18:13

There are, however, a number of words which could be described as ‘true’ adjectives. A ‘true’ adjective is a word which can be used for attribution without any special coding\(^{14}\) (Haspelmath, 2012, p. 125; Hengeveld, 1992, p. 58). Only a limited number have been identified and these are shown in Table 3-11. Some of these adjectives (particularly the non-colour adjectives) do have related verb forms, but they are classified as true adjectives because they are not coded with relative pronouns or the verbal prefix /lɛ-/ and they have singular and plural forms. See section 8.2.4 for a more detailed discussion.

<table>
<thead>
<tr>
<th>adjective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>márwàńi</td>
<td>mårwàk ‘old’</td>
</tr>
<tr>
<td>nɛjùk</td>
<td>nɛjùxò ‘new’</td>
</tr>
<tr>
<td>röɔxlɔnì</td>
<td>röɔxlàk ‘smart’, ‘clever’</td>
</tr>
</tbody>
</table>

This suggests that the class of (true) adjectives is a very limited class. It has much fewer true adjectives compared to Maa and Turkana (see discussion in section 8.2.2). There could

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\(^{14}\) ‘Special coding’ means derivational and/or lexical coding, but not inflectional coding.
be a process in Lopit which is similar to Turkana where “more and more roots were used in a verbal sense, thereby gradually driving out real adjectives” (Dimmendaal, 1983b, p. 332).

### 3.3.5 Adverbs

There are several ways of expressing adverbial concepts in Lopit. There is a limited range of underived or ‘true’ adverbs and these are listed in Table 3-12. These adverbs can express temporal reference, location and degree. They are discussed in more detail in section 8.3.1.

<table>
<thead>
<tr>
<th>Adverb</th>
<th>English</th>
<th>Adverb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>temporal</td>
<td>locative</td>
<td>degree</td>
<td></td>
</tr>
<tr>
<td>isó</td>
<td>‘in the future’</td>
<td>iní</td>
<td>‘here’</td>
</tr>
<tr>
<td>èrará</td>
<td>‘this morning’, ‘earlier’</td>
<td>dá</td>
<td>‘there’</td>
</tr>
<tr>
<td>ñólì?</td>
<td>‘yesterday’, ‘a few days ago’</td>
<td>dèdé</td>
<td>‘over there’, ‘away’</td>
</tr>
<tr>
<td>ifá</td>
<td>‘in the past’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bèrèn</td>
<td>‘before’, ‘in the past’, ‘early’</td>
<td>bi nóʔ</td>
<td>‘very’, ‘much’</td>
</tr>
<tr>
<td>iñàñà</td>
<td>‘now’</td>
<td>kaiʔ</td>
<td>‘a bit’</td>
</tr>
<tr>
<td>aínà</td>
<td>‘today’</td>
<td>dàŋ</td>
<td>‘also’, ‘too’</td>
</tr>
<tr>
<td>móiʔé?</td>
<td>‘tomorrow’</td>
<td>xìdùŋ</td>
<td>‘even’, ‘as well’</td>
</tr>
<tr>
<td>xòtúb</td>
<td>‘for long’, ‘too long’</td>
<td>fùr</td>
<td>‘all’</td>
</tr>
<tr>
<td>manner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dixá</td>
<td>‘just’, ‘like that’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tíjì</td>
<td>‘like this’</td>
<td>xàxì</td>
<td>‘alone’</td>
</tr>
</tbody>
</table>

However, mostly, adverbial concepts are expressed in other ways. These include the use of ideophones and the use of stative verbs either in a main clause or in an adverbial clause. All these methods are discussed in section 8.3.

### 3.3.6 Other words

There are two other words which have not been allocated to a particular word class. These are: /ja/, ‘emphasis marker’; and /xa/, ‘irony marker’.

The morpheme /ja/ could be described as a general emphatic particle, as illustrated in (65). This morpheme is part of the third person pronoun, /ịnlja/, where the suffix /ja/ is sometimes used to add emphasis or focus (see section 3.3.1).
The particle /xa/ is used to express irony, doubt or surprise in a situation. One example comes from a story in which the squirrel has tricked the leopard and the leopard is now dead. The squirrel talks about the leopard and says the following:

\[(65) \quad \text{íŋá a-írám ífá náŋ fàr nàboítè jà} \quad \text{NEG 1SG-play PST 1SG.NOM day one just} \]

\[- \text{‘No, I played just one day.’} \quad \text{AG:00:40:12} \]

The particle /xa/ is used to express irony, doubt or surprise in a situation. One example comes from a story in which the squirrel has tricked the leopard and the leopard is now dead. The squirrel talks about the leopard and says the following:

\[(66) \quad \text{é-róxòl xà íŋé} \quad \text{3-be.clever ?? 3SG.NOM} \]

\[- \text{‘He is (might be) clever.’} \quad \text{DX:36:09} \]

The squirrel is suggesting that, although the leopard might have been clever, he is now dead and hence he was not so clever after all. If someone says [éróxòl íŋé] then this is taken to be a reliable assertion. If the person says [éróxòl xà íŋé], then the listener is led to think that speaker is being ironic or doubtful and that the assertion about the leopard being clever is not meant to be reliable.
Chapter 4  The Noun Phrase

4.1  Introduction to the noun phrase

The noun phrase is used to express references to entities, as well as to activities and abstract concepts. We can identify a number of sub-constituents within NPs such as: nouns, pronouns, quantifiers, demonstratives and adjectives. The grammatical categories of NPs are number, case, gender and, in the case of pronouns, person.

The gender and number marking of nouns are discussed in sections 4.2 and 4.3. Case marking on the noun phrase is discussed in section 4.4, followed, in section 4.5, by verbal nominalisation, which is a very productive process in Lopit. Pronouns have been discussed in section 3.3.1 above.

The noun phrases can contain quantifiers (section 4.6.2), demonstratives (section 4.6.4), and possessives (section 4.6.5) and prepositional phrases (section 4.7). The noun phrase can also contain relative clauses, which are discussed in section 9.5. The noun phrase can also contain adjectives. However, there are only a small number of what I call true adjectives in Lopit and most property concepts are expressed with stative verb relative clauses. For this reason, I discuss the methods of expressing property concepts in a different chapter (see section 8.2). At the end of this chapter (4.8), I discuss the order of constituents in the noun phrase.

4.2  Gender

4.2.1  Marking of gender

All nouns in Lopit are inherently classified as either masculine or feminine. Both singular and plural nouns are classified according to gender. Most nouns are not marked overtly for gender. Gender is indicated by agreement marking on demonstratives, relative pronouns, quantifiers and possessives as shown in Table 4-1 (with absolutive case marking).

Some words such as /toxoni/, ‘person’, /xito/, ‘child’, /xtẹŋ/, ‘cow’ and /xineʔ/, ‘goat’ can be of either gender. For these words, the gender will only be indicated by the agreement marking. In this way, one can distinguish between a male and a female.
Table 4-1: Some gender distinctions in Lopit

<table>
<thead>
<tr>
<th>relative clause and possessive markers</th>
<th>demonstratives</th>
<th>quantifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘this’-near speaker</td>
<td>‘that’-near listener</td>
</tr>
<tr>
<td>SG</td>
<td>PL</td>
<td>SG</td>
</tr>
<tr>
<td>masculine</td>
<td>lè</td>
<td>xòlé</td>
</tr>
<tr>
<td>feminine</td>
<td>nà</td>
<td>xùnã</td>
</tr>
</tbody>
</table>

However, some nouns are overtly marked for gender with a prefix. The prefixes are usually of the form /lɔ-/ for masculine and either /i-/ or /na-/ for feminine. Some examples are given in Table 4-2. The /i-/ prefix appears to be much more common than /na-/ for feminine nouns. The nouns that do have gender marking include some kinship names, some agentive nouns and the terms for some birds and animals. Many kinship terms do not have gender marking (e.g. /mɔɲɛ/, ‘father’; /ɪɾaʃɪ/, ‘brother’; /mamaɲɪ/, ‘uncle’).

Table 4-2: Masculine and feminine nouns in Lopit with gender marking

<table>
<thead>
<tr>
<th>masculine</th>
<th>feminine</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>loŋoŋ</td>
<td>ūŋoŋ</td>
<td>‘first born child’</td>
</tr>
<tr>
<td>labla</td>
<td>ibla</td>
<td>‘second born child’</td>
</tr>
<tr>
<td>lomudak</td>
<td>idafĩ</td>
<td>‘whydah’ (bird)</td>
</tr>
</tbody>
</table>

There are also gender prefixes on some agentive nouns formed from verbs. Some examples are shown in Table 4-3.

Table 4-3: Some agentive nouns formed from verbs

<table>
<thead>
<tr>
<th>male</th>
<th>female</th>
<th>English</th>
<th>verb stem</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>lɔsagas</td>
<td>isagas</td>
<td>‘tall person’</td>
<td>isaga</td>
<td>‘be tall’</td>
</tr>
<tr>
<td>lɔbaŋ</td>
<td>ɪbaŋ</td>
<td>‘coward’</td>
<td>baŋ</td>
<td>‘fear’, ‘be a coward’</td>
</tr>
<tr>
<td>loŋere</td>
<td>īŋere</td>
<td>‘brave person’</td>
<td>īŋere</td>
<td>‘be brave’</td>
</tr>
<tr>
<td>lомуtã</td>
<td>īmutã</td>
<td>‘small person’</td>
<td>īmuta</td>
<td>‘be small’</td>
</tr>
</tbody>
</table>

Personal names are often marked for gender. Many people are named after an event that occurred when they were born. This is common in many African societies (Suzman, 1994). Some examples in Lopit are Lobala, Ibala (after /bala/, ‘harvest’) and Loholong, Iholong (after /xɔlɔŋ/, ‘sun’).

Feminine is the unmarked gender. If one is referring to a generic cow of unknown sex, the feminine gender will be used. It will also be used for a group consisting of a mixture of males and females. Mass nouns are generally feminine (e.g. /xɔfwo/, ‘flour’; /ixula/, ‘grass’; /lojɔmi/, ‘air’), unless the speaker wants to emphasize that the amount is relatively small.
Verb nominalisations are feminine unless the sex of the referent is clear (see section 4.5). Thus /leibonjori/, ‘meeting place; /iromit/, ‘ploughing tool’ and /imaŋit/, ‘culture’ are all feminine. The noun /xaitijenani/, ‘teacher’ can be masculine or feminine. In Lopit, masculine agreement is only used for beings which are clearly masculine and for beings and things which are small (see section 4.2.2).

The feminine gender is the unmarked gender in the Lotuxo-Maa sub-group (see Payne for Maa (1998, p. 159) and Muratori for Otuho (1938, p. 33)). For the Teso-Turkana sub-group, there does not seem to be an unmarked gender. For Turkana, Dimmendaal reports that “for most nouns, gender is inherent and unpredictable” (1983b, p. 210). There is some predictability in Ateso. Hilders and Lawrance state that trees, fruits, grasses and insects show masculine agreement and languages, countries, liquids and abstract nouns show feminine agreement (1957, p. 1).

The gender of a noun can sometimes change by association. For example, if a group of men is drinking tea, they may say [gì́lɔsì́lɛ́], ‘this.M glass’, whereas “in a women’s circle, they may say [gì́sì́nːå]” (‘this.F glass’, AT:28:27). Similarly, clothing can be either masculine or feminine depending on who is wearing it (AT:30:37).

The limited marking of gender in Lopit is unusual among Eastern Nilotic languages, where gender marking on nouns is widespread. In fact, Dimmendaal describes the marking of gender on the nouns as an innovation of the Eastern Nilotic branch of Nilotics (2011, p. 93). The masculine and feminine gender prefixes (or proclitics) for some languages are shown in Table 4-4 (where the prefixes shown for Lopit are those used in kinship terms and names). In Maa, for example, gender marking on nouns is used for a wide range of nouns, including birds, plants, animals, objects, natural features and verb nominalisations (D. L. Payne, 1998, p. 170; Tucker & Mpaayei, 1955, p. 3). Otuho also has gender prefixes on nouns although they are optional if there is another word (demonstrative or possessive) that indicates gender (Muratori, 1938, p. 33). Only Bari is similar to Lopit in this respect (Spagnolo, 1933, pp. p18-20).

Table 4-4: Gender prefixes and/or proclitics on nouns in Eastern Nilotic languages

<table>
<thead>
<tr>
<th></th>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Ateso</th>
<th>Turkana</th>
<th>Bari</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>(i-, na-)</td>
<td>a-, ne-</td>
<td>en-</td>
<td>a-</td>
<td>a-</td>
<td>-</td>
</tr>
<tr>
<td>SG</td>
<td>(lo-)</td>
<td>o-, lo-, la-</td>
<td>el-</td>
<td>e-</td>
<td>e-</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>i-</td>
<td>i-</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>PL</td>
<td>(lo-)</td>
<td>o-, lo-, la-</td>
<td>īl-</td>
<td>ī-</td>
<td>ī-</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>ī-</td>
<td>ī-</td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
4.2.2 Gender and evaluative morphology

In Lopit gender is used to mark differences in size. Large animals and large objects are marked with feminine gender and small objects with the masculine, as shown in Table 4-5.

In Lopit, a gender distinction shift can be used to differentiate between the sizes of objects. In the (67) and (68), the gender marking tells us that the stone in (67) is smaller than the one in (68).

(67) mórwó lè l-ò-nórè
stone.ABS REL.M SBO-3-be.green
‘the (small) stone which is green’, ‘the (small) green stone’ 11_10_20 (110)

(68) mórwó nà l-ò-nórè
stone.ABS REL.F SBO-3-be.green
‘the (large) stone which is green’, ‘the (large) green stone’ 11_10_20 (111)

Table 4-5: Some nouns showing the relationship between gender and size

<table>
<thead>
<tr>
<th>feminine</th>
<th>masculine</th>
</tr>
</thead>
<tbody>
<tr>
<td>dọ̀ge ‘mountain’</td>
<td>morotì ‘bean’</td>
</tr>
<tr>
<td>xadufa ‘drum store’</td>
<td>muguñ ‘ants’</td>
</tr>
<tr>
<td>xañ ‘village’</td>
<td>loxfeta ‘wasp’</td>
</tr>
</tbody>
</table>

A mass noun can also change gender when the amount changes. The quantity of water referred to in (70) is smaller than that referred to in (69) (e.g. it might be in a cup). The amount of water referred to in (70) is smaller than what one would normally assume. This is another indication that feminine is the unmarked gender.

(69) x-ò-líbà xifíọ̀ xònáŋ àrà l-ò-mátât
Q-3-be.good water.NOM this.F.PL like SBO-3-drink
‘Is this water good to drink?’ AO:04:06

(70) x-ò-líbà xìffọ̀ xùlọ̀ àrà l-ò-mátât
Q-3-be.good water this.M.PL like SBO-3-drink
‘Is this water good to drink?’ AO:05:17

This relationship between gender and size is common in African languages and has been studied by Di Grabo (2013). She uses the term ‘evaluative morphology’ to describe distinctions such as diminutives (small size), augmentatives (large size), appreciatives (good) and depreciatives (bad). Lopit does not use gender to distinguish appreciatives or depreciatives.
For most languages with a relationship between gender and size, the gender shifts are driven by the association between feminine gender and small size and masculine gender and large size (2013, p. 127). However, Di Grabo notes that at least one language, Hadza (isolate, possible Khosian, Tanzania) has the opposite (feminine is large, masculine is small). In languages where there are three genders (masculine, feminine, neuter/common), gender shifts may extend to the third gender. Of the Eastern Nilotic languages examined, Turkana, Toposa, Ateso and Karamojong use a gender shift to the neuter to derive diminutives as shown in example (71) from Ateso (Hilders & Lawrance, 1957, p. 1).

(71) Ateso a-pese i-pese
     F.SG-girl N.SG-girl
     'girl' 'baby girl'

In Turkana, a broader distinction of size can be made using masculine, feminine and neuter as shown in (72) (Dimmendaal, 1983b, p. 220). Payne points out that, in Maa and presumably in other languages, the same item can be either feminine/small or masculine/large depending on how the speaker wants to portray the item in the utterance (D. L. Payne, 1998, p. 168).

(72) Turkana M e-mor-ù ‘rocky mountain, big stone’
     F a-mor-ù ‘hill, stone’
     N i-mor-ù ‘pebble’

Gender in Otuho is discussed by Muratori. He states that "All Lotuxo [Otuho] names are feminine, except when you want to indicate the male distinctly from the female, or when you want to indicate a very small thing (1938, p. 33)". This is similar to Lopit and in contrast to the other Eastern Nilotic languages mentioned above, where the masculine is used for augmentatives and feminine for diminutives.

One other feature of the Lopit gender system is worth discussing. It appears that feminine/large and masculine/small feature can also apply to number as well as size. The two following examples have a similar meaning except that the number of drums referred to in (74) is small compared to the number in (73). As the consultant stated, “xulak ... is a few, not as many as xure” (EG:07:58) and “xure can mean 'some' or 'so many'” (EG:11:49).

(73) eí-wː̀n íjòxoí xɔ̀=dɔŋiʔ xʊ̀rɛ̀
     1PL-exist 1PL.NOM with=drums.ABS some.F
     'We have some drums.' EG:07:29

(74) eí-wː̀n íjòxoí xɔ̀=dɔŋiʔ xʊlák
     1PL-exist 1PL.NOM with=drums.ABS some.M
     'We have some drums.' EG:07:58
In this case, the evaluation is on number not size (i.e. the drums in (74) are not smaller than those in (73), they are fewer in number). This suggests that Lopit has an extra dimension of evaluative morphology which is related to number.

4.3 Number

4.3.1 Introduction to number marking in Lopit

Lopit follows the tripartite system of singulative, plurative and replacement marking. This system is based on which number category is realised with an unmarked base or root. It is shown in Table 4-6, which has been adapted from Dimmendaal (1983, p. 224) and Corbett (2000, p. 156). In Dimmendaal’s terminology, plurative marking is where the plural form has a morphological marker and the singular form is the unmarked base or root. Singulative marking is where the singular form has a morphological marker and the plural form is the unmarked base. Replacement marking is where both the singular and the plural forms have a morphological marker and the base is not specified for number and is not found as a word. The morphological markers are usually suffixes and tonal patterns. This system is common in Nilo-Saharan languages (Dimmendaal, 2000, p. 214).

Table 4-6: The tripartite system of number marking

<table>
<thead>
<tr>
<th>system</th>
<th>distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td>singulative marking</td>
<td>singular versus base</td>
</tr>
<tr>
<td>plurative marking</td>
<td>base versus plural</td>
</tr>
<tr>
<td>replacement marking</td>
<td>singular versus plural</td>
</tr>
</tbody>
</table>

Some examples of Lopit number marking are shown in Table 4-7. There many segmental morphemes which can be used to mark number. This is discussed further in Section 4.3.2.

Table 4-7: Examples of number marking in Lopit

<table>
<thead>
<tr>
<th>marking</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>singulative</td>
<td>xófir-í</td>
<td>xófir</td>
<td>‘feather’, ‘hair’</td>
</tr>
<tr>
<td></td>
<td>xàlá-tí</td>
<td>xàlā</td>
<td>‘tooth’</td>
</tr>
<tr>
<td></td>
<td>áxér-í</td>
<td>àxèr</td>
<td>‘star’</td>
</tr>
<tr>
<td>plurative</td>
<td>bérêt</td>
<td>bérêt-í</td>
<td>‘flag’</td>
</tr>
<tr>
<td></td>
<td>xírí</td>
<td>xírì-jà</td>
<td>‘waterhole’</td>
</tr>
<tr>
<td>replacement</td>
<td>xůn-ú</td>
<td>xůn-à</td>
<td>‘knee’</td>
</tr>
<tr>
<td></td>
<td>fáit-í</td>
<td>fáit-ô</td>
<td>‘ebony tree’</td>
</tr>
</tbody>
</table>

Some singular/plural relationships appear to involve irregular or suppletive forms. Some examples of these are shown in Table 4-8. There is some morphophonemic similarity
between the singular and plural in all these examples. However, I classify them separately as they use strategies that are not found elsewhere in the number marking system.

### Table 4-8: Irregular singular/plural forms

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xáná</td>
<td>xâs</td>
<td>‘hand’</td>
</tr>
<tr>
<td>máná</td>
<td>mátá</td>
<td>‘farm’</td>
</tr>
<tr>
<td>xítēŋ</td>
<td>xísúŋ</td>
<td>‘cow’</td>
</tr>
<tr>
<td>sòxínè</td>
<td>sâŋ</td>
<td>‘thing’</td>
</tr>
</tbody>
</table>

Another method of number inflection is tonal modification without segmental differences, although this has only been observed for a small number of nouns. Some examples are shown in Table 4-9. No pattern has yet been discerned for the tonal alternations between singular and plural forms. For example, the forms for ‘fruit’ and ‘father’ take low tone melodies in the singular but differ in the tone melodies they take in the plural.

### Table 4-9: Examples of tonal number inflection

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xínèʔ</td>
<td>xínè</td>
<td>‘goat’</td>
</tr>
<tr>
<td>jâñî</td>
<td>jâñí</td>
<td>‘fruit’</td>
</tr>
<tr>
<td>móżnè</td>
<td>móżnè</td>
<td>‘father’</td>
</tr>
</tbody>
</table>

I examined 446 Lopit nouns to determine the distribution of the various systems of number marking and to investigate potential rules. The frequency distribution of the different systems is shown in Table 4-10. The plurative marking system is the most common with 58%, but the proportions of singulative and replacement marking patterns are both considerable. (D. L. Payne & Ole-Kotikash, 2005)

### Table 4-10: Distribution of number marking systems in a sample of Lopit nouns

<table>
<thead>
<tr>
<th>system</th>
<th>number</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>plurative</td>
<td>257</td>
<td>58</td>
</tr>
<tr>
<td>singulative</td>
<td>85</td>
<td>19</td>
</tr>
<tr>
<td>replacement</td>
<td>79</td>
<td>18</td>
</tr>
<tr>
<td>irregular &amp; tonal</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>total</td>
<td>446</td>
<td>100</td>
</tr>
</tbody>
</table>

In the next section, I examine how nouns are assigned to the various number marking types.

---

15 This set of 446 nouns was the entire set of nouns in my corpus at the time this analysis was done (2015).
4.3.2 The singulative and plurative distinction

There is a semantic basis for the assignment of a lexeme to singulative versus plurative number marking pattern. The singulative pattern, where the singular is marked and the plural is unmarked, generally applies to those nominal lexemes which denote entities which normally occur in groups or large numbers. In addition to the examples in Table 4-7, other nouns which are unmarked in the plural and take singulative marking include /mɔrɔʔ/, ‘beans’; /sanaʔ/, ‘branches’; and /sɔɔt/, ‘coconuts’. The singulative pattern is also used for nouns which occur in pairs or finite sets (/xafijelaʔ/, ‘fingers’; /iwaʔ/, ‘wings’). This is common amongst Nilo-Saharan languages (Creissels, Dimmendaal, Frajzyngier, & König, 2008, p. 119; Dimmendaal, 2000, p. 216).

The distinction between singulative and plurative patterns can be related to the concept of individuation in number marking. Corbett (2000, p. 173) points out that “the groups which we quantify with large numbers are the groups which are less individuated and conversely are more likely to be viewed as a unit”. Thus, referents of the Lopit words /aʃɛr/, ‘star’; /balaŋ/, ‘salt’; and /xɔfɪɾ/, ‘hair’, are found in large numbers and are not easily differentiated into single items.

When they are individuated, singulative singulars can often have a specific meaning which refers to a quantum of the denotatum. Some examples are shown in Table 4-11.

<table>
<thead>
<tr>
<th>Table 4-11: Nouns that take the singulative patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
</tr>
<tr>
<td>ŋámá-ri</td>
</tr>
<tr>
<td>báláŋ-á</td>
</tr>
<tr>
<td>xófíɾ-í</td>
</tr>
</tbody>
</table>

The distinction between singulative and plurative was examined in some detail by Grimm (2012) for the Dagaare language (Gur: Niger-Congo). Grimm tested 1500 words in Dagaare and found the following (2012, p. 50):

- Nouns for higher-level (more salient) animals are more likely to be unmarked in the singular than nouns for insects.
- Nouns for trees are typically unmarked in the singular in comparison to nouns for vegetation which are typically unmarked in the plural.

16 Grimm uses the term marked singular rather than singulative.
• Nouns for tools are more likely to be unmarked in the singular than the converse.
• Nouns for body parts which inherently come in pairs or groups are more likely to be unmarked in the plural than not; while nouns for body parts which inherently come in single units are more likely to be unmarked in the singular.¹⁷

I carried out a similar analysis on the set of 446 Lopit nouns and tested the categories of mammal, bird, reptile, insect, tree, vegetation and tool¹⁸. The results are shown in Figure 4-1. The resulting trends were somewhat similar to those found by Grimm for the same categories.

**Figure 4-1: Number marking across semantic domains**

For most semantic categories tested, the preferred number marking pattern was clear. However, it was not so clear for the insects and so the data was examined in more detail. The examples of insects are listed in Table 4-12. Those insects which tend to be larger and more likely to be seen individually, such as butterflies, caterpillars and large wasps, take the plurative system. Conversely, those insects which are smaller and/or seen in large numbers, such as mosquitoes, lice and flies, have the singulative system. Whilst not conclusive, this data tends to support the role of individuation in determining the choice between singulative and plurative patterns for number markings.

The number pattern for the terms for body parts was also investigated. The terms were grouped into those parts which are found singly (‘face’, ‘tongue’ and ‘head’) and those which

---

¹⁷ There were a number of exceptions which related to some specific semantic aspects, borrowings and some derived forms.

¹⁸ Vegetation covers things like beans, grains, leaves and plants.
are found in pairs or sets (‘eyes’, ‘fingers’ and ‘hands’). The results are shown in Figure 4-2. These also resemble the findings of Grimm. That is, no body parts that occur singly take singulative marking, while body parts that occur in pairs or groups are about equally represented across the three types.

Table 4-12: Plurative and singulative insect nouns

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ífôří</td>
<td>ífôří-xá</td>
<td>‘butterfly’</td>
<td>xîlôří-î</td>
<td>xîlôří</td>
<td>‘bee sp.’</td>
</tr>
<tr>
<td>lômólôrük</td>
<td>lômólôrux-î</td>
<td>‘ant sp.’</td>
<td>xîmûrün-î</td>
<td>xîmûрук</td>
<td>‘mosquito’</td>
</tr>
<tr>
<td>xütêlék</td>
<td>xütêléx-î</td>
<td>‘caterpillar’</td>
<td>lôŋôrôm-î</td>
<td>lôŋôrôm</td>
<td>‘termite’</td>
</tr>
<tr>
<td>ildoło</td>
<td>ídoló-xó</td>
<td>‘locust’</td>
<td>lôfêr-itî</td>
<td>lôfêr</td>
<td>‘tick’</td>
</tr>
<tr>
<td>lótáxulôn</td>
<td>lótáxulôn-î</td>
<td>‘wasp, large mud dauber’</td>
<td>múxûn-î</td>
<td>múxûn</td>
<td>‘ant, small black’</td>
</tr>
</tbody>
</table>

It is worth noting that there are a considerable number of examples of replacement marking in the body part data. Replacement marking is not found in Dagaare so this was not examined in Grimm’s work. The proportion of the replacement system in some categories in Lopit is higher than for the singulative system. In some groups, like ‘insects’ in Figure 4-1 and ‘pairs or groups’ in Figure 4-2, the proportion of replacement marking is quite high. From this data, it might be possible to infer that the proportion of replacement marking is higher for a particular semantic group when there are also high proportions of both singulative and plurative marking in the group. It could be that replacement marking is some kind of intermediate or derived pattern. This is discussed in Section 4.3.3.3.

Figure 4-2: The numbering patterns for body parts
One finding from this study does not appear to be reported by Dimmendaal or Grimm. This is the finding that some words are regarded as singulative by some speakers and plurative by others. Some examples are given in Table 4.13. For example, some speakers (AL, VH) consider the base of the concept of ‘rib’ or ‘ribs’ in Lopit (/manʔ/) to be singulative in pattern with the singular marked by the suffix /–tí/. A third speaker (DA) considers the base to be of the plurative pattern with the plural marked by the suffix /-jin/.

<table>
<thead>
<tr>
<th></th>
<th>AL</th>
<th>VH</th>
<th>DA</th>
<th>JL</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>màiř-tí</td>
<td>màiř</td>
<td>màiř-tí</td>
<td>màiř</td>
<td>‘rib’</td>
</tr>
<tr>
<td>PL</td>
<td>màří</td>
<td>màří</td>
<td>màří-jín</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>kâlå-i</td>
<td>kâlå</td>
<td>kâlå</td>
<td>kál</td>
<td>‘side’</td>
</tr>
<tr>
<td>PL</td>
<td>kålí</td>
<td></td>
<td>kålí</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>i-tûrèt</td>
<td>tûrèt</td>
<td>tûrèt</td>
<td>i-tûrèt</td>
<td>‘twin’</td>
</tr>
<tr>
<td>PL</td>
<td>i-tûrèt</td>
<td></td>
<td>i-tûrèt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is some kind of dialectal/sociolectal/speaker variation here. This is worthy of further study.

4.3.3 Regularity of number marking in Lopit

4.3.3.1 Introduction

Many studies have commented on the complexity of number marking patterns in Nilo-Saharan languages and have pointed out that it is very difficult to predict the plural of a plurative pattern lexeme given the singular form of the lexeme (e.g. Tucker and Mpaayei (1955, p. 4); Hliders and Lawrance (1957, p. 3). On the other hand, Dimmendaal (2000, p. 255) claims that Nilo-Saharan languages “have a finite system governed by rules” although he acknowledges that further research is required to understand these rules.

This study has found that the forms of plurative, singulative and replacement marking in Lopit are very diverse. A large range of number suffixes was identified. This is common amongst Nilo-Saharan languages (Dimmendaal, 2000, p. 219). In an attempt to determine if there is a “finite system governed by rules”, the number morphology of 446 nouns was tabulated, as shown in Table 4.14.

The most common form (around 32% of this sample) involves the suffix /-i/ or /-Ci/. This is found in both plural and singulative systems. Some examples are shown in Table 4.15. A number of these examples are loan words (e.g. the word ‘pen’ (Arabic)) and this suggests that these forms are productive. Note that /k/ is realised as [x] intervocally, e.g. [bùk], ‘book’, and [bùxì], ‘books’ (see section 2.2).
Table 4-14: Patterns for singular and plural formation

<table>
<thead>
<tr>
<th>plural</th>
<th>number</th>
<th>%</th>
<th>singular</th>
<th>number</th>
<th>%</th>
<th>singular</th>
<th>number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>-i</td>
<td>73</td>
<td>28</td>
<td>-i</td>
<td>30</td>
<td>35</td>
<td>-ni</td>
<td>-k</td>
<td>18</td>
</tr>
<tr>
<td>-xi</td>
<td>5</td>
<td>2</td>
<td>-ti</td>
<td>34</td>
<td>40</td>
<td>x-</td>
<td>-i</td>
<td>13</td>
</tr>
<tr>
<td>-a</td>
<td>23</td>
<td>9</td>
<td>-xi</td>
<td>3</td>
<td>4</td>
<td>-V₁</td>
<td>-V₂</td>
<td>12</td>
</tr>
<tr>
<td>-xa</td>
<td>32</td>
<td>12</td>
<td>other</td>
<td>18</td>
<td>21</td>
<td>other affixes</td>
<td>36</td>
<td>46</td>
</tr>
<tr>
<td>-o</td>
<td>23</td>
<td>9</td>
<td>sub-total</td>
<td>85</td>
<td>100</td>
<td>sub-total</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>-xo</td>
<td>16</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-(x,s,j,c)in</td>
<td>16</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Wn</td>
<td>11</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>37</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sub-total</td>
<td>257</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4-15: Examples of number marking using /-i/ and /-Ci/

<table>
<thead>
<tr>
<th>plural</th>
<th>singulative</th>
<th>English</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>tiān</td>
<td>tiān-i</td>
<td>‘animal’</td>
<td>cēn</td>
<td>cēn</td>
<td>‘bird’</td>
</tr>
<tr>
<td>gālām-i</td>
<td>‘pen’</td>
<td>fōfōn-ı</td>
<td>fōfōn</td>
<td>‘cactus’</td>
<td></td>
</tr>
<tr>
<td>sà</td>
<td>sà-tì</td>
<td>‘hour’</td>
<td>muáráx-ı</td>
<td>muárák</td>
<td>‘horn’</td>
</tr>
<tr>
<td>xo</td>
<td>xo-sì</td>
<td>‘head’</td>
<td>mòrō-tì</td>
<td>mòrōʔ</td>
<td>‘bean’</td>
</tr>
</tbody>
</table>

The suffix forms /-a/ and /-o/ also occur with both singular and plural forms, as shown in Table 4-16. Note that the suffixes /-xo/ and /-xa/ can be regarded as allomorphs of /-o/ and /-a/ respectively. It could be that the number marking morpheme /-o/ is used for stems with [+ATR] vowels and /-a/ used for stems with [-ATR] vowels. This is illustrated in the examples in Table 4-16. This is similar to the use of the imperfective suffixes /-o/ and /-a/, which is discussed in section 6.4.2.1. Not enough data has been examined to be certain about this and further research is required.

Table 4-16: Examples of number marking with /-a/ and /-o/

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xùnòm</td>
<td>xùnòm-ò</td>
<td>‘cave’</td>
<td>mòrw-ó</td>
<td>mòruò</td>
<td>‘stone’</td>
</tr>
<tr>
<td>xùró</td>
<td>xùró-òx</td>
<td>‘goat kid’</td>
<td>báláŋ-ā</td>
<td>báláŋ</td>
<td>‘salt’</td>
</tr>
<tr>
<td>xómwọọ</td>
<td>xómwọọ-ą</td>
<td>‘face’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xáři</td>
<td>xáři-jà</td>
<td>‘river’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For singulative marking, the suffix form appears to be more predictable. In 75% of the sample, the singular is marked with the suffix /-i/ after a stem-final consonant and with the
suffix /-ti/ after a stem-final vowel. These can be considered to be allomorphs of the singular morpheme /-i/. This is similar to the neighbouring language, Otuhu, where Arber (1936, p. 7) describes /-i/ as the “common form” for the singular suffix for singulative nouns.

4.3.3.2 Suffixes for plurative number marking

One of the main observations of the data in Table 4-15 and Table 4-16 is that it is not obvious how the choice between the /-i/, /-o/, and /-a/ suffixes is conditioned. Table 4-17 shows the range of stem endings (i.e. the last two phonemes) that are associated with the various plural markers.

<table>
<thead>
<tr>
<th>suffix form</th>
<th>suffix</th>
<th>last two phonemes on the stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>-(C)i</td>
<td>-i</td>
<td>-ak, -am, -an, -aŋ, -at, -eŋ, -et, -er, -et, -iŋ, -it, -of, -ol, -om, -oŋ, -or, -os, -ra, -re, -ru, -uk, -ul, -um, -uŋ, -ur, -ut, -wa</td>
</tr>
<tr>
<td></td>
<td>-xi</td>
<td>-du, -fi, -fwo, -fa</td>
</tr>
<tr>
<td></td>
<td>-ni</td>
<td>-ra</td>
</tr>
<tr>
<td></td>
<td>-si</td>
<td>-bu, xo</td>
</tr>
<tr>
<td></td>
<td>-ti</td>
<td>-sa, -ju, -iu, -me, -re, -ri, -ro, -je, -</td>
</tr>
<tr>
<td>-(C)a</td>
<td>-a</td>
<td>-ak, -al, -ar, -aŋ, -bu, -ef, -en, -er, -ir, -ok, -ol, -oŋ, -ni</td>
</tr>
<tr>
<td></td>
<td>-ja</td>
<td>-ri, -tu</td>
</tr>
<tr>
<td></td>
<td>-na</td>
<td>-ge, -xa</td>
</tr>
<tr>
<td></td>
<td>-ta</td>
<td>-xe, -ri</td>
</tr>
<tr>
<td></td>
<td>-ya</td>
<td>-me, -ni, -ri, -te</td>
</tr>
<tr>
<td>-(C)o</td>
<td>-o</td>
<td>-iŋ, -ol, -om, -oŋ, -on, -ri, -ru, -ti</td>
</tr>
<tr>
<td></td>
<td>-xo</td>
<td>-lo, -me, -mu, -ri, -ro, -ti, -wo</td>
</tr>
<tr>
<td></td>
<td>-jo</td>
<td>-ti</td>
</tr>
<tr>
<td></td>
<td>-so</td>
<td>-xe, -ne, -ri</td>
</tr>
</tbody>
</table>

A large range of final vowel, consonant and vowel/consonant combinations can be found with each of the three suffix forms in Table 4-17. For example, a stem ending in /…ri/ can condition seven different plurative suffixes (as shown in bold in Table 4-17). This shows that suffix choice cannot be predicted based on how the noun stem ends. However, there are occasional tendencies for words with similar structures to pattern together.

To explore what suffix choices might be regularized, three consultants were tested on their intuitions about the plural marking of loan words from English and Arabic and of nonce
A sample of 66 words was used and several patterns were identified. These patterns are related to the syllable structure of the stem. The testing was based on CV(CV)(C) words, since consonant clusters are not normally found in Lopit words. Sometimes the consultants gave Arabic plurals e.g. /kabaja/, /kabaja-t/. These have been ignored. The results are shown in Table 4-18, together with some examples.

<table>
<thead>
<tr>
<th>stem structure</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>suffix</th>
<th>no. of words with this stem structure</th>
<th>no. of words with this suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>consonant final</td>
<td>gamis</td>
<td>gamis-i</td>
<td>‘shirt’</td>
<td>-i</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>telifision</td>
<td>telifision-i</td>
<td>‘television’</td>
<td>-i</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>CV</td>
<td>ka</td>
<td>ka-si</td>
<td>‘car’</td>
<td>-si</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>CVCV</td>
<td>leta</td>
<td>leta-sin</td>
<td>‘letter’</td>
<td>-sin, -jin</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>tifi</td>
<td>tifi-sin</td>
<td>‘TV’</td>
<td>-sin, -jin</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>CVCVCV</td>
<td>kubaja</td>
<td>kubaja-xa</td>
<td>‘cup’</td>
<td>-xa</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>natana</td>
<td>natana-xa</td>
<td>nonce word</td>
<td>-xo</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>teroli</td>
<td>teroli-xo</td>
<td>‘trolley’</td>
<td>-xo</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

The tests with borrowed and nonce words show patterns which are also present to some extent in the previous lexical data, but with much less regularity. This suggests that there are some preferences governing choice of number-marking morpheme, allowing the system to be productive, but that historical or other processes may have obscured parts of this system in the Lopit lexicon. On the basis of the tests, the following generalisations for plural formation are provisionally proposed.

(75) If the noun ends in a consonant, the plural suffix is /-i/
If the noun has the form CV, the plural suffix is /-si/
If the noun has the form CVCV, the plural suffix is /-sin/
If the noun has the form CVCVCV and at least one V is /o/, the plural suffix is /-xo/
If the noun has the form CVCVCV and at least one V is /a/, the plural suffix is /-xa/

---

19 A nonce word is one which has been made up for testing purposes
20 I assume that there is a single morpheme (provisionally /-sin/) which has variable pronunciations which may in part be lexically specified and may also differ depending on the individual. These include /-jin/, /-sin/, /-cin/ and /-jin/.
Variation in plural formation in Turkana is similarly related to word structure. Dimmendaal gives examples of the plurative suffix /-a/, which is found after CVCVC roots, and the suffix /-in/, which is found after CVC roots (2000, p. 235).

It is also worth noting that I have observed some variation between speakers. Some of this is may be related to different locations within the same dialect area. However, I have also some variation with the same speaker, such as alternating between common suffixes like /-xɔ/ and /-sin/. This was also observed by Unseth in his study of the Nilo-Saharan Surmic language, Majang. He commented that “A certain amount of variation for marking number on some nouns is noticeable, even by one speaker” and that “Generally, the variation consisted of alternate suffixes” (1988, p. 76). This variation is not surprising given the complexity of the number-marking systems. In addition, alternating some of the common suffixes for plurative nouns is unlikely to cause much ambiguity.

### 4.3.3.3 Affix forms for replacement number marking

There are a number of distinct affix forms amongst nouns with replacement marking. Three patterns have been identified although only one of these (the first) is regular and predictable.

(i) Derived nouns describing human roles: Nouns which have been derived from verbs have a regular number marking system which involves a number marker in both the singular and plural (i.e. the replacement pattern). These nouns take /-ni/ for the singular and /-k/ for the plural. This is also common across Nilo-Saharan languages (Dimmendaal, 2000, p. 243). Table 4-19 shows a list of nominalised verbs with examples of agentive nouns. The table also includes other nouns which are not directly derived from verbs and which are used for describing people. This number marking system is not used for kinship terms (such as mother, child and aunt).

<table>
<thead>
<tr>
<th>semantics</th>
<th>stem</th>
<th>gloss</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>agentive</td>
<td>bara</td>
<td>keep cows</td>
<td>xá-bárà-ni</td>
<td>xá-bárà-k</td>
<td>‘cow farmer’</td>
</tr>
<tr>
<td></td>
<td>itijena</td>
<td>‘teach’</td>
<td>xá-itiyénà-ni</td>
<td>xá-itiýênà-k</td>
<td>‘teacher’</td>
</tr>
<tr>
<td></td>
<td>toxo</td>
<td>‘kill’</td>
<td>xá-tóxò-ni</td>
<td>xá-tóxò-k</td>
<td>‘killer’</td>
</tr>
<tr>
<td>other</td>
<td>mérò-ní</td>
<td>‘enemy’</td>
<td>mérò-k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dógiò-ní</td>
<td>‘Lopit (mountain) people’</td>
<td>dógiò-k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>márwà-ní</td>
<td>‘elder’</td>
<td>márwà-k</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(ii) Singular with /xi-/ prefix and plural with /-i/ suffix: Some examples are shown in Table 4-20. This appears to be the only place where a prefix is used for marking number. The prefix is probably the Lopit version of what Greenberg (1981) called the “movable k”
which has no meaning by itself and predates current Eastern Nilotic (and many other Nilo-Saharan) languages (see also Dimmendaal (1983b, p. 251)). There is no clear semantic or phonological commonality amongst the examples in this group.

Table 4-20: Lexemes in the replacement pattern with prefix and suffix

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xি-řη</td>
<td>řη-ʁ?</td>
<td>‘goat hide’</td>
<td></td>
</tr>
<tr>
<td>xি-řηो</td>
<td>řη-о-ʁ</td>
<td>‘meat’</td>
<td></td>
</tr>
<tr>
<td>xি-τుη</td>
<td>τు-ి</td>
<td>‘snake (sp.)’</td>
<td></td>
</tr>
<tr>
<td>xি-ంు</td>
<td>ఒ-සుం</td>
<td>‘ear’</td>
<td></td>
</tr>
</tbody>
</table>

(iii) Replacement marking involving other changes: As shown in Table 4-21, this can involve a different vowel for the singular versus the plural.

Table 4-21: Lexemes in the replacement pattern with suffix

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xов-ఆ</td>
<td>ఆ-ు</td>
<td>‘arrow’</td>
<td></td>
</tr>
<tr>
<td>xోం-ం</td>
<td>ం-ాు</td>
<td>‘knee’</td>
<td></td>
</tr>
<tr>
<td>xోం-ం</td>
<td>ం-ాు</td>
<td>‘sweet potato’</td>
<td></td>
</tr>
<tr>
<td>నారదుు</td>
<td>నారదుు</td>
<td>‘sugar ant’</td>
<td></td>
</tr>
<tr>
<td>ముంుుు</td>
<td>ముంుుుు</td>
<td>‘snake’</td>
<td></td>
</tr>
</tbody>
</table>

Dimmendaal (2000, p. 242) reports that replacement marking may come about following the loss of the morphological unmarked form in an earlier three-way number alternation. He illustrates with examples from two related Nilo-Saharan languages of the Daju family, Shatt and Sila. The three-way distinction for ‘tooth’/(set of) teeth’/teeth’ in Shatt given in (76) can be compared with the two-way distinction given in (77) for Sila. It appears that Sila has lost the morphologically unmarked form of nyir, ‘teeth’.

(76) Shatt nyix-te nyix nyix-ke
‘tooth’ ‘(set of) teeth’ ‘teeth’ (Dimmendaal, 2000, p. 242)

(77) Sila nyir-te nyir-ke
‘tooth’ ‘teeth’ (Dimmendaal, 2000, p. 242)

It might be possible to postulate a process for Lopit somewhat similar to that described by Dimmendaal if we examine those words which were discussed in relation to Table 4-13. Recall that this table demonstrates different speakers’ choices of singular and plural forms of particular lexemes, and shows that one speaker might use a singulative pattern for a particular lexical item, while another speaker might use a pluralative pattern for that same
lexical item. For example, speakers AL and VH use singulative patterns for [mârìʔ], ‘ribs’, while speaker DA uses a plural pattern for [mârìʔ]. From this variation within a community, a replacement pair [màrìtì] and [màrìjìn] could potentially develop if the simple form [mârìʔ] falls out of use. This needs to be studied further.

4.3.4 Mass nouns

In many languages, a distinction can be made between countable and non-countable nouns. Non-countable nouns cannot be differentiated on the basis of number. They are called mass nouns. In Lopit, mass nouns are inherently either singular or plural. They do not change their number category. The words for ‘milk’ and ‘water’ take plural agreement, whereas those for ‘air’, ‘grass’ and ‘flour’ take singular agreement. Some examples are shown in (4) and (5).

(78) rɛʔ xòná l-á-rá x-ìtùrà
milk REL.F.PL SBO-3-be INF-pour
‘sour milk (milk which has been poured (a long time))’ AE:1:02:11

(79) lòj:àmi nà l-ò-nók
air REL.F.SG SBO-3-be.hot
‘hot air (air which is hot)’ 11_10_20 (150)
*lòj:amì xuna l-o-nok
air REL.F.PL SBO-3-be.hot

Classification of mass nouns as singular or plural also occurs in Turkana (Dimmendaal, 1983b, p. 224) and some Bantu languages (Corbett, 2000, p. 173). Dimmendaal ascribes these differences to the etymological origin of each particular term (2000, p. 230) rather than any semantic conceptualization.

4.3.5 The greater singular

A particular area of interest in Lopit number marking is the fact that nouns marked with the singular can sometimes indicate a very large number. I call this the ‘greater singular’. The use of the greater singular is also accompanied by the use of the feminine gender, if the noun does not already show feminine agreement. The greater singular can be regarded as a kind of greater plural. Corbett (2000, p. 173) discusses a three-way distinction between singular-plural-greater plural. The greater plural can cover a number of things including a much larger number than is usually associated with the plural (‘plural of abundance’) and a number which refers to all the members of a particular entity (‘global plural’). The examples given by Corbett cover a range of languages but all involve a distinct morphological marking
for the greater plural. The Lopit greater singular is a ‘plural of abundance’, but I use the term greater singular because it is only found with the singular form.

The greater singular is found with nouns that have both singulative and plurative marking patterns. In Lopit, the word /lomeʔ/, ‘millet’ has a singulative marking pattern and shows plural agreement in its base form (80). The singular form /lometi/ camn usually be translated as a ‘grain of millet’. This was discussed in relation to Table 4-11 above. An example is shown in (81). However, it can also be used to express a very large or unbelievable amount, as shown in (82).

(80) e-iřiá iŋjá lómèʔ xonà lỳxidlıŋ
3-grind.IPFV 3SG.NOM millet.PL.ABS of.F.PL Lohidong.ABS
‘She grinds Lohidong’s millet.’ EL:50:07

(81) ó-ᵣómá lỳxidlıŋ lômè-tí dê = jafí nàŋí
3-find.PVF Lohidong.NOM millet-SG.ABS in = tea.ABS his.F.ABS
‘Lohidong found a grain of millet in his tea.’ EL:48:49

(82) e-iⁿà-bál-û iʃòxoi lômè-tí
1PL-PVF-harvest-VEN 1PL.NOM millet-SG.ABS
‘We harvested so much millet!’ BE:07:39

The use of the singular form of a singulative noun would attract attention in a context like that in (82). No-one would expect to hear the utterance ‘We harvested a grain of millet’ and so it seems that speakers are able to use this unexpectedness for semantic effect.

The use of singular words to denote very large numbers can be considered as a distinction between marked and unmarked number. This appears to be a somewhat productive process and is not only used with singulative nouns. As mentioned above, Lopit has a number of mass nouns which are either inherently singular or inherently plural. The word /xifioŋ/, ‘water’ is inherently plural, as shown in (83).

(83) x-ᵣ-łówbà xifioŋ xònáŋ
Q-3-good water.PL this.F.PL
‘Is this water good (for drinking)?’ AO:03:41

Example (84) shows it can be marked with the suffix -i/. Given that /xifioŋ/ is plural, this yields a singular interpretation. This conveys the sense of a very large amount of water or a flood.
The word for cow is /xítéŋ/ and the plural is /xísʊŋ/. It is possible to use the suffix /-i/ on /xítéŋ/ to denote a special, very large number. As the following utterance shows, the word [xítéŋ] takes singular agreement.

(84) ẹ-sái ịsábit nàbọtọ̀ lèfè x-ọ-ìfọ̀wọ̀ táfifèr à = xífíóŋ-i
3-rain week one.F until and-3-be.full Tafiferr like = water-SG

‘It rained for a week and the Tafiferr plain was full of water (flooded).’ BE:11:21

The word for cow is /xítéŋ/ and the plural is /xísʊŋ/. It is possible to use the suffix /-i/ on /xítéŋ/ to denote a special, very large number. As the following utterance shows, the word [xítéŋ] takes singular agreement.

The greater singular can also be used on the normal singular form of nouns following the plurative marking pattern. The singular form of buffalo, /xɔsɔwːan/, is used in (87). The plural has the form /xɔsɔwːan?/.

(85) á-wọló náŋ xítéŋ-i nà dè = kápwoità
1SG-see.PFV 1SG.NOM cow-SG that.F.SG in = Kàpoeta

‘I saw so many cows in Kàpoeta.’ (lit. ‘I saw that cow in Kàpoeta’). CC:53:45

A further extension of the use of a singular lexeme to indicate greater singular meaning is found with the word /tòxoni/, ‘person’. The usual plural for this lexeme is the suppletive /xîjo/, ‘people’. However, the singular /tòxoni/, ‘person’ can indicate a very large number of people in an utterance such as (86).

(86) x-ì-wọló ụjé tòxònì nà dè = nãròbì
Q-2SG-see.PFV 2SG.NOM person.ABS that.F.SG in = Nàirobi

‘Did you see all the people in Nàirobi?’ (lit. ‘Did you see that person in Nàirobi?’) CC:52:09

The greater singular can also be used on the normal singular form of nouns following the plurative marking pattern. The singular form of buffalo, /xɔsɔwːan/, is used in (87). The plural has the form /xɔsɔwːan?/.

(87) xɔsɔwːan nà tè = íxújù
buffalo.SG.ABS that.F.SG at = ìhuju

‘There are lots of buffalo in the ìhuju (a swamp in western Lopit).’ EF:17:15

There are a number of indicators which are associated with the use of the greater singular, particularly with plurative nouns. Firstly, there needs to be some kind of discourse context so that the use of a singular is marked. Secondly, there is usually a place name (see (85) to (87)). Thirdly, the default, feminine gender is used, i.e. the demonstrative /na/ in (85) to (87). The consultant said that if you used a masculine form and said [tòxònì lè dè nãròbì], this would be interpreted as ‘that person’ (EF:20:37).

The use of singular marking to indicate ‘a large number’ does not appear to be described in the literature. Corbett (2000, p. 173) describes a range of “special use” plurals. These special uses include exaggerative, intensificative or sensational plurals. These forms all involve the use of a plural or a reduplicated plural to add some kind of emphasis to a situation or activity. This is not the case in Lopit where the relevant noun has singular marking. The
situation in Lopit could be regarded as somewhat similar to greater plural, but it is different in that it uses the marked singular.

Some other Eastern Nilotic languages also have a second plural, although they do not appear to have a greater singular. These second plurals can have different functions. For example, Otuho has a greater plural (Muratori, 1938, p. 57). In Maasai and Bari there are a plural and a collective plural (Dimmendaal, 2000, p. 242). In Teso, the second plural is a generic plural (Hilders & Lawrance, 1957, p. 4). Some examples are shown in Table 4-22.

<table>
<thead>
<tr>
<th></th>
<th>Otuho</th>
<th>Maasai</th>
<th>Ateso</th>
<th>Bari</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
<td>nenie</td>
<td>eng-ker</td>
<td>e-tunga-nan</td>
<td>nyomot-i</td>
</tr>
<tr>
<td>‘goat’</td>
<td>‘sheep’ (SG)</td>
<td>‘man’</td>
<td>‘one/a seed’</td>
<td></td>
</tr>
<tr>
<td>plural</td>
<td>nedye</td>
<td>ing-kerr-a</td>
<td>i-tunga</td>
<td>nyomot</td>
</tr>
<tr>
<td>‘goats’</td>
<td>‘sheep’ (PL)</td>
<td>‘men’</td>
<td>‘seeds’</td>
<td></td>
</tr>
<tr>
<td>second</td>
<td>nedye-jin</td>
<td>ing-kerr-ai</td>
<td>i-tunga-sinei</td>
<td>nyomot-an</td>
</tr>
<tr>
<td>plural</td>
<td>‘many goats’</td>
<td>‘herds of sheep’</td>
<td>‘mankind’</td>
<td>‘kinds of seeds’</td>
</tr>
</tbody>
</table>

### 4.4 Case inflections marked on the noun phrase

In the Dorik variety of Lopit, there are two cases: nominative and absolutive. The language can be described as marked-nominative, in which the nominative is the marked case and the absolutive is unmarked. A noun or pronoun takes nominative marking as the A of a transitive verb or the S of an intransitive verb, while the O (direct or indirect) is in the absolutive form. Examples are shown in (88) and (89). Case marking is only one of the ways in which grammatical relations are encoded in the clause. For this reason, the case marking system as a whole is discussed in section 7.3.5 on grammatical relations. This section will focus on the morphology of case marking.

As with other Eastern Nilotic languages, case is indicated by tonal changes. Lopit has three tones, used to indicate both lexical and grammatical distinctions: High, Falling and Low (Billington, 2017, p. 275). These are discussed in section 2.5.1 above.

Rather than a tonal morpheme, it is the changes in the tonal pattern across the noun which indicates a change in case. As can be seen in (88) and (89), the absolutive form of the first

21 In the Ngutira dialect, genitive is also noted, using tone (Stirtz 2014). This is not present in Dorik, which indicates possession with obligatory particles. The use of the term ‘absolutive’ is discussed in section 7.3.5.
person singular pronoun has a low tone, [nàŋ], and the nominative form has a high tone, [nàŋ]. For the noun /məlɔŋ/, ‘baboon’, the absolutive form has a LL tonal pattern, [mɔ́lɔ́ŋ], while the nominative form has a HH pattern, [mɔ́lɔ́ŋ].

\[(88) \text{á-wóló nàŋ məlɔ́ŋ àíná} \]
\[1SG\text{-see} \quad 1SG\text{.NOM} \quad \text{baboon.ABS} \quad \text{today} \]
\[\text{‘I see the baboon today/now’} \quad 20150105\text{-4-lpx-al-rb} \]

\[(89) \text{eí-wóló mɔ́lɔ́ŋ nàŋ} \]
\[3SG > 1SG\text{-see} \quad \text{baboon.NOM} \quad 1SG\text{.ABS} \]
\[\text{‘The baboon sees me’} \quad 20150105\text{-4-lpx-al-rb} \]

While these examples appear to show a simple change from low to high tones in forming the nominative case in Lopit, there are, in fact, a range of possible tonal patterns on nominative-marked nouns, and these are not entirely predictable. For example, ‘leg’ is low-toned [xɛ́jʊ̀] in the absolutive, then high-low [xɛ́jʊ̀] in the nominative; and ‘clothing’ is high-toned [bɔŋɔ] in the absolutive and then low-toned [bɔŋɔ] in the nominative; while another high-toned absolutive noun [xínɛ], ‘goat’ becomes high-low in the nominative, as [xínɛ].

To explore the possible patterns, Moodie & Billington studied a sample of 253 disyllabic nouns in both nominative and absolutive case settings. They found a range of nominative tonal patterns – LL, LH, HL, HH and FL. The distribution of these patterns is shown in Figure 4-3 (from Moodie & Billington, 2015).
The HL pattern is the most frequent, accounting for 54% of the data, followed by LL with 23%. The HL and HH patterns together account for 77% of the data, and we can thus propose that there is a preference for initial high tones in Lopit nominative case-marking. However, this does not offer much insight into why other tonal patterns are also possible for nominative marked forms.

To investigate this in more detail, Moodie & Billington examined the nature of the change in tone pattern going from absolutive to nominative forms. The nominative tone patterns corresponding to each absolutive tone pattern are shown in Figure 4-4, with the absolutive patterns along the x-axis, and then the percentage of occurrences of each nominative tone pattern on the y-axis (from Moodie & Billington, 2015).

Some interesting patterns are revealed. If the absolutive pattern of a noun begins with a low tone (e.g. in LL, LF, and LH nouns), the preference is for the nominative form of the same noun to begin with a high tone, and in particular to take the tonal pattern HL. For example, among LL absolutive nouns, 62% take the HL tonal pattern in the nominative. However, HH is also common if the absolutive is LL, accounting for 38% of the data. If the absolutive pattern is HH, then LL is vastly preferred for the nominative (59%), though HL also occurs often (30%). Therefore, the preference for initial high tones in nominative forms remains, but it appears that the tonal pattern of the absolutive form may have some influence on the
choice of tonal pattern in the nominative form, in that absolute forms with low tones will tend to have high tones in the nominative, and absolute forms with high tones will tend towards low tones in the nominative.

While it is clear that there is a certain amount of lexical specificity in the tone changes from absolute to nominative case, the general trend for the nominative is to ‘make it different’ to the absolute. The nominative pattern is the inverse of the absolute in 60% of cases. In 4% of the sample, there was no change in tone pattern. If one focuses on initial syllables only, one finds that the tones change to their opposites in 82% of cases. This variation requires further investigation.

4.5 Verbal nominalization

The formation of nouns from verbs is a very productive process in Lopit. A number of different types are found. These include action and state nouns, which generally have the same form as the infinitive, and agentive, instrumental, manner, locative, objective and reason nouns, which have characteristic markings. These are discussed in the following sections.

Nominalisations show case agreement, as would be expected for nouns. The verbal noun /xidɔlɔ/, ‘singing’ is shown in the nominative form in (90) as subject of the verb /liba/, ‘be good’ and in the absolutive in (91) as the object of the verb /muno/, ‘be happy (with)’.

(90) ɛ̀-lɪ́bá xidɔlɔ́

3-be.good singing.NOM

‘Singing is good.’ CV:35:02

(91) í-ɲá nàŋ l-á-múnó xidɔlɔ̀ nàŋí

1.not.be 1SG.NOM SBO-1SG-be.happy singing.ABS his.F.ABS

‘I’m not happy with his singing.’ CV:36:28

The processes of verbal nominalisation are common in Eastern Nilotic languages (Tucker & Bryan, 1966, p. 454). Table 4-23 lists some of the processes across Eastern Nilotic languages, including those in Otuho (Muratori, 1938, pp. 206–227), Ateso (Barasa, 2017, p. 91), Turkana (Dimmendaal, 1983b, pp. 269–299), Maa (Tucker & Mpaayei, 1955, pp. 218–221) and Bari (Spagnolo, 1933, p. 14). This data indicates that the marking of nominalized verbs is very similar across the EN languages.
### 4.5.1 Action or state nominalization

There are processes in Lopit for making action nouns from action verbs and state nouns from stative verbs. These nouns convey “the fact, the act, the quality or occurrence” of the verb (Comrie & Thompson, 2007, p. 335). They can be identified as nouns in that they can be specified by possessors, as in (92), and modified by prepositional phrases, as in (93). Some examples are listed in Table 4-24.

<table>
<thead>
<tr>
<th>noun</th>
<th>English</th>
<th>infinitive</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>loton</td>
<td>‘walk’</td>
<td>loton</td>
<td>‘walk’</td>
</tr>
<tr>
<td>xitixola</td>
<td>‘selling’</td>
<td>xitixola</td>
<td>‘sell’</td>
</tr>
<tr>
<td>xindo</td>
<td>‘singing’</td>
<td>xindo</td>
<td>‘sing’</td>
</tr>
<tr>
<td>ximora</td>
<td>‘reconciliation’</td>
<td>ximora</td>
<td>‘reconcile’</td>
</tr>
<tr>
<td>ca</td>
<td>‘dancing’</td>
<td>ca</td>
<td>‘dance’</td>
</tr>
<tr>
<td>saman</td>
<td>‘wealth’</td>
<td>saman</td>
<td>‘be.rich’</td>
</tr>
<tr>
<td>munei</td>
<td>‘happiness’</td>
<td>munei</td>
<td>‘be.happy’</td>
</tr>
</tbody>
</table>

These have the same form as the imperfective or neutral form of the infinitives as shown in the following examples for the Class I verb /pʊra/, ‘bake, make (bread)’ and the Class II verb /itːen/, ‘teach’ (see section 5.2.4 on the infinitive). The prefix /x-/ can be glossed as either an infinitive marker (INF) or a verbal noun marker (VN). These trigger feminine gender agreement, which supports the view that the feminine gender is unmarked.

(92) ò-gól x-ìtiːjènà nàiti
3-be.difficult VN-teach.NOM my.F.NOM
‘My teaching is difficult’ 11_10_20 (15)

(93) e-icah-à ípé pɔrà nà ímọ̀nè?
3-start-IPFV 3SG.NOM bake.VN.ABS of.F bread.ABS
‘He started making the bread’. AC:1:10:02
Sometimes one cannot distinguish between an infinitive or a verbal noun as shown with the verb /ɪdɔlɔ/, ‘sing’, in the following.

(94) ŋai l-e-ìcàk xídɔlɔ xídɔlɔ
who SBO-3-start.N INF.sing VN.sing.ABS
‘Who will start to sing? Who will start singing?’  BU:56:09

On the other hand, the verb /ɪdɪmá/, ‘build’ is used as a verbal noun in (95). This is the case because it is qualified by the prepositional phrase [nà xàbûtèri], ‘of planes’.

(95) ŋai l-e-ìcàk xìdimá na xàbûtèri
who SBO-3-start.N VN.build.ABS of.F planes
‘Who started (the) making (of) planes?  BU:57:27

Some action nominalisations have a singular and plural. In this case, they have different forms to the infinitive. The singular is formed with the suffix /-i/ and the plural with the suffix /-ita/ added to the neutral form of the infinitive. Some examples are given in Table 4-25.

Table 4-25: Examples of verbal nominalisations with singular and plural

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>infinitive.N</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xínáxì</td>
<td>xínáxìtì</td>
<td>‘repetition’</td>
<td>xínàk</td>
<td>‘repeat’</td>
</tr>
<tr>
<td>xígígílì</td>
<td>xígígílìtì</td>
<td>‘thought’</td>
<td>xígígílì</td>
<td>‘think’</td>
</tr>
</tbody>
</table>

4.5.2 Agentive nouns

These nouns can be constructed from activity and stative verbs to give a noun with the meaning of ‘a person who VERBs’. This is done with the prefix /xa-/ on the verb root. The number is indicated using the suffix /-ni/ (singular) and /-k/ (plural). Gender is in agreement with the referent of the agentive noun. A list of examples is given in Table 4-26. Agentive nouns appear to have a regular tonal pattern, at least for the absolutive case. It is HHLL or HHHLL for the singular and HLL or HHHL for the plural.

Some of the nouns can have a meaning which has been extended from the normal meaning of the verb. The verb /ŋula/ can be translated as ‘speak badly or incomprehensibly’. The verbal noun /xaŋulani/ indicates someone who speaks badly. It is also used to indicate someone who is not a Lopit (or Otuho) speaker and is regarded as a foreigner. The verbal noun /xaitimaɲani/ is used to signify a leader and is derived from the verb /ɪtɪ-maɲa/.

22 The infinitive is marked for aspect, i.e. neutral, imperfective or perfective. This is discussed in section 5.2.4
The word and can chase after lost cattle or after a giraffe when hunting. This contrasts with "runner" comes from the verb /feja/, 'be fast' and refers to someone who is a very able runner and can chase after lost cattle or after a giraffe when hunting. This contrasts with

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>verb stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>xa-ítijénà-ni</td>
<td>xa-ítijénà-k</td>
<td>'teacher'</td>
<td>itijêna</td>
</tr>
<tr>
<td>xá-bärà-ni</td>
<td>xá-bärà-k</td>
<td>'cow manager'</td>
<td>bara</td>
</tr>
<tr>
<td>xá-móŋîtà-ni</td>
<td>xá-móŋîtà-k</td>
<td>'sleepy person'</td>
<td>moŋita</td>
</tr>
<tr>
<td>xá-mùnò-ni</td>
<td>xá-mùnò-k</td>
<td>'happy person'</td>
<td>munei</td>
</tr>
<tr>
<td>xá-bòrò-ni</td>
<td>xá-bòrò-k</td>
<td>'big person'</td>
<td>boro</td>
</tr>
<tr>
<td>xá-ŋúlà-ni</td>
<td>xá-ŋúlà-k</td>
<td>'poor speaker', 'foreigner'</td>
<td>ŋula</td>
</tr>
<tr>
<td>xa-ítí-máŋà-ni</td>
<td>xa-ítí-mápà-k</td>
<td>'leader'</td>
<td>ɪ́numaŋa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'cause to live'</td>
<td></td>
</tr>
</tbody>
</table>

(96) 1-i-wák     iŋé     x-i-rá   xaítìmáŋáni,  
SBO-2SG-want 2SG.NOM INF-PRF-be leader.ABS  
è-nár  l-è-lìbà  iŋé  tàjí  
3-be.good  SBO-3-be.good  2SG.ABS  heart.NOM

'If you want to be a leader, you must have a good heart.'

(lit. ...it is important that the heart is good to you) (Cows and the Lopit story)

There is another method for forming agentive nouns from verbs. This involves using the prefix /b̥-/ for males and /i-/ for females. Some examples are shown in Table 4-27 and one is given in the utterance in (97).

(97) i-ífiŋá     lásàgà  
IMP-ask  tall man  
'Ask the tall one!' CI:50:54

<table>
<thead>
<tr>
<th>male</th>
<th>female</th>
<th>English</th>
<th>verb stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>lásaga</td>
<td>isaga</td>
<td>'tall person'</td>
<td>isaga</td>
</tr>
<tr>
<td>l̥baŋ</td>
<td>ibaŋ</td>
<td>'coward'</td>
<td>baŋ</td>
</tr>
<tr>
<td>lomuta</td>
<td>imuta</td>
<td>'small person'</td>
<td>muta</td>
</tr>
<tr>
<td>lōfeja</td>
<td>feja</td>
<td>'fast (expert) runner'</td>
<td>feja</td>
</tr>
<tr>
<td>lotir</td>
<td>tir</td>
<td>'champion wrestler'</td>
<td>tir</td>
</tr>
</tbody>
</table>

Some of these nouns have a specific meaning. For example, the word /lōfeja/, 'expert runner' comes from the verb /feja/, 'be fast' and refers to someone who is a very able runner and can chase after lost cattle or after a giraffe when hunting. This contrasts with

79
/xaŋeitani/, ‘runner’ from the verb, /ŋeita/, ‘run’ and which refers to someone who runs in a more generic way.

This agentive construction may be related to the adjectival form since /lsaga/ and /lsaga/ can also be used as stand-alone adjectives. This is discussed further in section 8.2.3 below.

4.5.3 Locative nouns

These are formed by using the prefix /le-/ together with the suffix /-ri/ and some examples are shown in the following table. Note that the normal mid-vowel assimilation takes place with the prefix /le-/, as shown in /loxorari/ in Table 4-28.

<table>
<thead>
<tr>
<th>singular</th>
<th>English</th>
<th>verb stem</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>le-itiːna-ri</td>
<td>school</td>
<td>itiːna</td>
<td>teach</td>
</tr>
<tr>
<td>le-iboŋo-ri</td>
<td>meeting place</td>
<td>iboŋ</td>
<td>meet</td>
</tr>
<tr>
<td>le-ca-ri</td>
<td>dancing place</td>
<td>ca</td>
<td>dance</td>
</tr>
<tr>
<td>le-ifwo-ri</td>
<td>kitchen</td>
<td>ifwo</td>
<td>cook</td>
</tr>
<tr>
<td>lo-xora-ri</td>
<td>distribution place</td>
<td>xora</td>
<td>divide, distribute</td>
</tr>
</tbody>
</table>

4.5.4 Instrumental nouns

There is a process in Lopit for forming a noun from an action verb with the meaning of an ‘instrument for “verbing”’. This process is quite productive and uses the prefix /i-/ and the suffix /-it/. The plural is marked with the suffix /-i/. Some examples for both Class I and II verbs are given in the following table.

<table>
<thead>
<tr>
<th>class</th>
<th>singular</th>
<th>plural</th>
<th>English</th>
<th>verb stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>i-guar-it</td>
<td>i-guar-it-i</td>
<td>‘tool for drawing’</td>
<td>guar ‘draw a line’</td>
</tr>
<tr>
<td></td>
<td>i-jam-it</td>
<td>i-jam-it-i</td>
<td>‘dowry’</td>
<td>jam ‘marry’</td>
</tr>
<tr>
<td></td>
<td>i-lot-it</td>
<td>i-lot-it-i</td>
<td>‘fare’ (payment for travel)</td>
<td>lot ‘go’</td>
</tr>
<tr>
<td></td>
<td>i-fer-it</td>
<td>i-fer-it-i</td>
<td>‘sleeping thing’ (e.g. mat)</td>
<td>fer ‘lie down’</td>
</tr>
<tr>
<td>II</td>
<td>i-ixit-it</td>
<td>i-ixit-it-i</td>
<td>‘knife (for slicing)’</td>
<td>ixit ‘slice’</td>
</tr>
<tr>
<td></td>
<td>i-ikol-it</td>
<td>i-ikol-it-i</td>
<td>‘small machete’</td>
<td>ikol ‘prune’, ‘trim’</td>
</tr>
<tr>
<td></td>
<td>i-box-it</td>
<td>i-box-it-i</td>
<td>‘shovel’</td>
<td>ibok ‘dig (a hole)’</td>
</tr>
</tbody>
</table>
4.5.5 Manner nouns

Nouns are derived from verbs to mean the ‘way of “verbing”’ and generally use the same affixes as locative nouns. Some examples are shown in Table 4-30.

<table>
<thead>
<tr>
<th>noun</th>
<th>English</th>
<th>verb stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>le-idolo-ri</td>
<td>(way of) ‘singing’</td>
<td>.sdolo ‘sing’</td>
</tr>
<tr>
<td>le-cenita-ri</td>
<td>(way of) ‘laughing’</td>
<td>cenita ‘laugh’</td>
</tr>
<tr>
<td>lo-daxa-ri</td>
<td>(way of) ‘eating’</td>
<td>daxa ‘eat’</td>
</tr>
<tr>
<td>lo-lot-ije</td>
<td>(way of) walking</td>
<td>lot ‘walk’, ‘go’</td>
</tr>
</tbody>
</table>

They can be distinguished from the action nominalisation described in section 4.5.1 above. The following two examples illustrate the difference between /leidolo/ and /xidolo/. The phrase [leidolo nàmò] can be translated as ‘your singing’, ‘your way of singing’ or ‘the way you sing’. When /xidolo/ is used as a verbal noun or gerund, as in the last word in (99), it refers to the general act of singing.

(98) leidolo nàńò  े-lìbà
singing.ABS your.F.ABS 3-be.good
‘Your (way of) singing is good.’  CK:06:46

(99) á-kém  nàńò  x-ièblò  ो-göl  xati  xidlo
1SG-try.N 1SG.NOM INF-sing 3-be.difficult but VN.sing.NOM
‘I tried to sing, but singing is hard.’  AG:01:07:58

It appears that, if manner nominalisations are possessed, the possessor must have a specific referent. On the other hand, action nominalisations can have a generic possessor (99) or a specific possessor (100). It is possible to use the expression [xidolo nàńì], ‘his singing’. In this case, it appears to have a more general meaning than [leidolo nàńì], ‘his way of singing’.

(100) í-ńá  nàńò  l-á-wák  x-ièblò  nànì
1SG-not.be 1SG.NOM SBO-1SG-want VN-sing.ABS his.ABS
‘I don’t want his singing.’  CV:36:28

There is another form of manner nominalisation. An example involves the verb /lot/, ‘walk, come’ and involves the prefix /lo-/ and the suffix /–ije/ to form the manner noun /lolotije/, ‘way of walking’. An example is given in (101).
The suffixes /-ri/ and /-ije/ might be described as allomorphs, although I have yet to determine how the verbs select the suffix. These suffixes are also used as the instrumental suffix. This is discussed in section 5.4.4 on verbal derivation.

### 4.5.6 Other forms of verbal nominalisation

Some nominalised verbs can be used to convey a pejorative meaning. The noun /xisaga/, ‘length, height’ is the normal nominalisation from the verb /isaga/, ‘be tall, long’. However, the word /xisagi/ is used when the speaker wants to convey that there is something wrong or less than ideal. In (102), the speaker is indicating that it means “there is something bad about their tallness” (CK:47:34). The use of the suffix /-i/ could be related to the use of the same suffix in the greater singular (see section 4.3.5 and, in particular, examples (84) and (85)). That is, both uses indicate something is unusual or exceptional.

```
(102) ídék xai-iságà xiság-i nà dìnà
NEG.IMP IMP-be.tall height-PEJOR of.F Dinka
‘Don’t be tall (like) the tallness of the Dinka!’ CK:47:28
```

The word [xibwòti] from the verb /ibwot/, ‘get drunk, intoxicate’, is used in a similar way in (103).

```
(103) ídék xaí-bwòtó xibwòt-i nà jòn
NEG.IMP IMP-get.drunk drunkenness-PEJOR of.F John
‘Don’t get drunk (like) the drunkenness of John!’ CK:52:08
```

Other nominalisations have been observed which involve different forms. The noun /loxorí/, ‘boundary’, is derived from the verb /xora/, ‘divide, distribute’. An example is given in (104).

```
(104) ð-rómó-rí íŋe á=lóxòrí
3-dig-IT 3SG.NOM to = boundary
‘He digs to the boundary.’ CI:09:58
```

This is distinguished from the noun /loxorari/, ‘place of distribution’, which is listed in Table 4·30 above. This word can be described as a conventional locative verbal nominalisation using the prefix /le-/ and the suffix /-ri/. The word /loxori/ appears to be an example of a more specialised nominalisation method. I have not yet observed similar examples.
There are a number of nominalisations which appear to be irregular. One group involves
the Class II verb /ɪɾɔ/, ‘speak’. A range of nominalisations is listed in the following table.
With this verb, the stem, /ɪɾɔ/, undergoes modification. The initial high front vowel of
the stem is dropped and the suffix /-ri/ is added in the formation of the singulative plural /roɾi/.
The singular is marked with the prefix /xi-/ . It seems that the stem has changed to /iɾɔ/
or /iɾora/ in the agentive nominalisations /xaɾɔran/, ‘speaker’ and /xaɾɔɾak/ ‘speakers’. If
one follows the patterns for agentive nominalisation presented in 4.5.2, one would expect
/xa-iro-ni/, ‘speaker’ and /xa-iro-k/, ‘speakers’ for the last two entries in Table 4-31.

<table>
<thead>
<tr>
<th>noun</th>
<th>number</th>
<th>English</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>xi-ɾɔri</td>
<td>SG</td>
<td>‘speech’, ‘way of speaking’</td>
<td>CIː28ː08</td>
</tr>
<tr>
<td>xa-ɾora-ni</td>
<td>SG</td>
<td>‘speaker’, ‘speechmaker’</td>
<td>CIː31ː56</td>
</tr>
<tr>
<td>xa-ɾora-k</td>
<td>PL</td>
<td>‘speakers’, ‘speechmakers’</td>
<td>CIː31ː36</td>
</tr>
</tbody>
</table>

Another series of irregular nominalisations is listed in Table 4-32. This involves the verbs
/isina/, ‘advise’, /iti-won/, ‘CAUS-exist’ and /tti-maŋa/, ‘CAUS-live’. The word /xitaŋaŋita/
is described as ‘how anyone should live’, ‘the best ways of living’ (BJː28ː24).

<table>
<thead>
<tr>
<th>noun</th>
<th>number</th>
<th>English</th>
<th>verb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>x-isina-i</td>
<td>SG</td>
<td>‘advice’</td>
<td>isina</td>
<td>‘advise’</td>
</tr>
<tr>
<td>x-isina-ta</td>
<td>PL</td>
<td>‘advice’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x-tti-maŋ-it</td>
<td>SG</td>
<td>‘way of living’</td>
<td>ttaŋa</td>
<td>‘give life to’, ‘make live’</td>
</tr>
<tr>
<td>x-tti-maŋ-it-a</td>
<td>PL</td>
<td>‘ways of living’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x-iti-won-it</td>
<td>SG</td>
<td>‘means of living’</td>
<td>won</td>
<td>‘exist’</td>
</tr>
<tr>
<td>x-iti-won-it-a</td>
<td>PL</td>
<td>‘means of living’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nominalisations can also be made with derived verbs. This is quite common with verbs with
ventive or itive derivation (see section 5.4.5). It can be an action or state nominalization
using the infinitive. Examples are given with the verb /poto/, ‘clean’ in the next two
examples. In (105), the cleaning is general (non-directional). In (106), the cleaning is done
in a direction away from the speaker.

(105) pɔtɔ nɔiɾi nə tɔi$bɛl$ inːá ɛ-pef xaɾɑŋa-ti ɛ-lo-10tʊ
VN.clean my.F of.F table.ABS that.F 3-not.be fly.SG 3-PER-come
‘(Because of) my cleaning of the table, the fly has stopped coming.’
(lit. the fly is not still coming)’ CJː50ː31
Another nominalisation involves the prefix /lo-/ and the suffix /-ini/. This gives the noun /lolotini/, 'coming' from the verb /lot/, 'go'. The prefix /lo-/ is a nominalising prefix and the suffix /-ini/ is a ventive suffix.

4.6 Nominal specifiers and modifiers

4.6.1 Introduction

This section describes the range of nominal specifiers and modifiers that are used in Lopit. There are some forms which have a range of functions and meanings. For example, the words /nabo/ and /lobo/ can have several functions; as the cardinal number, 1; as a non-numeral quantifier, which can be translated as ‘a’, ‘another’; and as an indefinite article. The words /nia/ and /lia/ can function as a demonstrative and, perhaps, as a definite article. These are listed in Table 4-33, which also shows the section in which they are discussed.

<table>
<thead>
<tr>
<th>word</th>
<th>function</th>
<th>English</th>
<th>section</th>
</tr>
</thead>
<tbody>
<tr>
<td>nàbò</td>
<td>lòbò</td>
<td>the number 1</td>
<td>‘one’</td>
</tr>
<tr>
<td>nàbò</td>
<td>lòbò</td>
<td>non-numeral quantifier</td>
<td>‘a’, ‘another’</td>
</tr>
<tr>
<td>nàbò</td>
<td>lòbò</td>
<td>indefinite article</td>
<td>‘a’</td>
</tr>
<tr>
<td>xàrèʔ</td>
<td>xàrèk</td>
<td>non-numeral quantifier</td>
<td>‘some’ (PL)</td>
</tr>
<tr>
<td>ñànè</td>
<td>ñànè</td>
<td>definite article</td>
<td>‘the’</td>
</tr>
<tr>
<td>ñàñè, ñàñè</td>
<td>ñàñè, ñàñè</td>
<td>spatial demonstrative</td>
<td>‘this’ (near speaker)</td>
</tr>
<tr>
<td>nàfà, na</td>
<td>nàfà, nà</td>
<td>spatial demonstrative</td>
<td>‘that’ (near hearer)</td>
</tr>
<tr>
<td>nènìò, nìà</td>
<td>nènìò, nìà</td>
<td>spatial demonstrative</td>
<td>‘that’ (away from speaker/hearer)</td>
</tr>
<tr>
<td>nàrà</td>
<td>làrà</td>
<td>temporal demonstrative</td>
<td>‘the one from earlier’</td>
</tr>
<tr>
<td>nàŋlêʔ, lèŋlêʔ, lèŋlêʔ</td>
<td>temporal demonstrative</td>
<td>‘the one from yesterday’</td>
<td>4.6.4.2</td>
</tr>
<tr>
<td>nàfà</td>
<td>lèfà</td>
<td>temporal demonstrative</td>
<td>‘the one from some time ago’</td>
</tr>
</tbody>
</table>
4.6.2 Numerals and other quantifiers

4.6.2.1 Cardinal numbers

The basic cardinal numbers in Lopit are shown in Table 4-34. The numbering system is essentially decimal, although there are indications in the words for ‘seven’, ‘eight’, and ‘nine’ that five is a significant number. That is, /xat-arih/, ‘seven’ and /xatɔ-xnɔt/, eight’ can be regarded as something like ‘and two’ and ‘and three’, given that /xɔ/ translates as ‘with’.

Table 4-34: Cardinal numbers in Lopit

<table>
<thead>
<tr>
<th></th>
<th>Men (M)</th>
<th>Women (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>lɔbɔtɔ</td>
<td>nabɔtɔ</td>
</tr>
<tr>
<td>2</td>
<td>łoɔrık</td>
<td>arik</td>
</tr>
<tr>
<td>3</td>
<td>łoɔnɔt</td>
<td>ŋnɔt</td>
</tr>
<tr>
<td>4</td>
<td>łoŋwɔn (M)</td>
<td>aŋwɔn</td>
</tr>
<tr>
<td>5</td>
<td>mjet</td>
<td>tɔmɔtɔ</td>
</tr>
<tr>
<td>6</td>
<td>یلɛ 23</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>xatɔt</td>
<td>tɔmɔtɔ</td>
</tr>
<tr>
<td>8</td>
<td>xatɔnnɔt</td>
<td>mjet</td>
</tr>
<tr>
<td>9</td>
<td>xatɔŋwɔn</td>
<td>tɔmɔtɔ</td>
</tr>
<tr>
<td>10</td>
<td>tɔmɔtɔ</td>
<td>100</td>
</tr>
</tbody>
</table>

There is only limited agreement marking for gender with the cardinal numbers. Only the numbers for ‘one’ have marked masculine and feminine forms. With the numbers ‘two’, ‘three’ and ‘four’, there is a masculine form and a neutral form which can be used for female and for general agreement. Examples are given in (108). The use of the masculine form for the numbers 2, 3, and 4 is now rare in Lopit. The masculine forms are recorded by Driberg (1932, p. 604) but Vossen has only recorded the neutral forms (1982, pp. 134–146).

(108) xɔdɔt 1-əŋwɔn ɲɔʁwɔ əŋwɔn xijɔ əŋwɔn
       men M-four women four people four

In contrast to some adjectives and nouns (see Table 4-27), it is not possible to have the /i-/ prefix as an indicator of feminine gender. Words like /ixɔrik/ and /ixunɔt/ are not used.

The words /nabɔtɔ/ and /lɔbɔtɔ/ can be shortened to /nɔbɔ/ and /lɔbɔ/ respectively.

23 Note that /یلɛ/, ‘six’ has a single lateral (20130508-2 at 01:28:49) and contrasts with the demonstrative /یلɛ/, ‘this’ (see 4.6.4.1).
The unmarked word order for numbers is after the possessive pronoun and before adjectives, demonstratives or relative clauses.

Some of the numbers have related verbal constructions. The numbers for ‘1’ contains the verb root /boito/, ‘be one’, be alone’. Examples of the verb /boito/ is given in (111) and (112).

Some of the numbers have related verbal constructions. The numbers for ‘1’ contains the verb root /boito/, ‘be one’, be alone’. Examples of the verb /boito/ is given in (111) and (112).

The only number that has been observed to have a related verbal form is ‘10’. An example with the verb /tomon/, ‘be ten’ is given in (113).

The only number that has been observed to have a related verbal form is ‘10’. An example with the verb /tomon/, ‘be ten’ is given in (113).

### 4.6.2.2 Ordinal numbers

The prefix /ita-/ and the suffix /-i/ are normally used for ordinal numbers so that /ləxəmik/, /unik/, ‘three’ becomes /itaxəmxə/, ‘third’. Note that, in the context of a following /i/, /k/ shows its usual alternant, /x/.
The following table lists some of the ordinal numbers. Some of the numbers are a little irregular when compared with cardinal numbers. The first six ordinal numbers are also used to denote the days of the week (Monday to Saturday).

### Table 4-35: Ordinal Numbers in Lopit

<table>
<thead>
<tr>
<th>ordinal</th>
<th>cardinal</th>
<th>ordinal</th>
<th>cardinal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Itaboite</td>
<td>ləbɔ̌tɔ́t (M), nabɔ́tɔ́t (F)</td>
<td>4 stanwani</td>
<td>laŋwan (M), aŋwan</td>
</tr>
<tr>
<td>2 Tarexi</td>
<td>ləxɔ́rık (M), ərık</td>
<td>5 ətamijeti</td>
<td>mijet</td>
</tr>
<tr>
<td>3 Itaxunixi</td>
<td>lɔ̀xunik (M), ənɪk</td>
<td>6 italeji</td>
<td>ile</td>
</tr>
</tbody>
</table>

#### 4.6.2.3 Non-numeral quantifiers

Lopit has a relatively small number of quantifiers. These are listed below. The unmarked word order is for the quantifier to follow the noun, as illustrated in (115).

### Table 4-36: Other quantifiers in Lopit

<table>
<thead>
<tr>
<th>gender unmarked</th>
<th>feminine</th>
<th>masculine</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nàbɔ́</td>
<td>lbbɔ́</td>
<td></td>
<td>‘a’, ‘one’, ‘another’ (SG)</td>
</tr>
<tr>
<td>xùrɛ́</td>
<td>xùlák</td>
<td></td>
<td>‘some’ (PL)</td>
</tr>
<tr>
<td>fùr</td>
<td></td>
<td></td>
<td>‘all’, ‘everything’</td>
</tr>
<tr>
<td>ðàŋ</td>
<td></td>
<td></td>
<td>‘all’, ‘whole’, ‘every’</td>
</tr>
</tbody>
</table>

Some examples are given below. The words /xure?/, /xulak/ can usually be translated as ‘some’ or ‘a number of’.

(115) xɔ́ʃɔ́ áwːɔ́n x-ð-ŋɔ́t-ú mɔ́rɔ́? xùrɛ́?
and.then monkey.NOM SEQ-3-take-VEN beans.ABS some.F
‘Then the red monkey took some beans’ Squirrel story (30)

If the context allows it, it is possible to leave out the noun that is being quantified. (116) refers to some milk (/re/, ‘milk.F.PL’) which has just been milked.

(116) x-ð-dúmu xùrɛ́ x-ð-dáxá-rì ɲirijà
SEQ-3-take some.F SEQ-3-eat-INS food
‘And they take some (milk) to eat food with.’ Cows and the Lopit

The word /daŋ/ can be translated as ‘all’, ‘everything’, ‘whole’ as illustrated in the following two examples.
The word /fur/ is similar to /daŋ/.

The words /nabo/ and /lobo/ can be translated as ‘a’ (or the singular of ‘some’) as illustrated in the following. Note in the following example that /xìma/, ‘fire’ is singular.

The words /nabo/ and /lobo/ can be used with the noun /toxoni/ to express the equivalent of ‘anybody’, as shown in (121). Note that the quantifier [nábò] is placed in front of the noun. This is pragmatically marked (focussed) since normally the quantifier follows the noun. The utterance could be interpreted as ‘I don’t think that even one person is coming’.

The words /nabo/ and /lobo/ can also be translated as ‘another’. In (122) and (123), the speaker is looking at some books and is pointing out some new books. In (123), “[nábò] here means ‘another’” (Consultant, BGː43ː20).

(117) ę-ŋà-tóxo-ì íçèjà dàŋ
3-PFV-kill-VEN 3PL.ABS all
‘He killed all of them.’ Squirrel story (110)

(118) x-3-já ḋirijà té=xàŋ dàŋ
SEQ-3-not.be food at=village whole
‘And there is no food in the whole village.’ Cows and the Lopit

The word /fur/ is similar to /daŋ/.

(119) e-î-já ícé fùr
3-PFV-eat 3PL.NOM all
‘They ate everything.’ BJ:42:26

The words /nabo/ and /lobo/ can be translated as ‘a’ (or the singular of ‘some’) as illustrated in the following. Note in the following example that /xìma/, ‘fire’ is singular.

(120) x-3-jó àw:òŋ ìjáŋ, xódì xìmà lśbó
SEQ-3-say monkey mother give.IMP fire one.M
‘The red monkey said “Mother, give me some fire”.’ Squirrel story (27)

The words /nabo/ and /lobo/ can be used with the noun /toxoni/ to express the equivalent of ‘anybody’, as shown in (121). Note that the quantifier [nábò] is placed in front of the noun. This is pragmatically marked (focussed) since normally the quantifier follows the noun. The utterance could be interpreted as ‘I don’t think that even one person is coming’.

(121) i-jà náŋ l-á-gígifò xijó nábò tòxòní l-ò-lòt-ú
1SG-not.be 1SG.NOM SBO-1-believe COMP one.F person.ABS SBO-3-go-VEN
‘I don’t think that anyone (F) is coming.’ EG:22:38

The words /nabo/ and /lobo/ can also be translated as ‘another’. In (122) and (123), the speaker is looking at some books and is pointing out some new books. In (123), “[nábò] here means ‘another’” (Consultant, BGː43ː20).

(122) íná l-á-rá nèjók
this.F SBO-3-be new.thing.ABS
‘This is a new one.’ BG:41:12

(123) nábò nèjók ín:áŋ
one.F new.thing.ABS this.F COP
‘This is another new one.’ BG:42:07

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However, it can also be the coordination of successive clauses that gives the interpretation of ‘another’. Both the long form /nabɔɪtɔ/, /lɔbɔɪtɔ/ and the short form /nabo/, /lobo/ can be used to convey the sense of ‘one/a NP… and another NP…’ In the following examples, the second /nabɔɪtɔ/ in (124) and the second /lobo/ in (125) can be translated as either ‘another’ or ‘a’. This kind of coordination is discussed in section 9.2.2.3.

(124) a-įjeitâ náŋ xànàsî nàbɔɪtɔî ínî dà mèlbèn
1SG-have 1SG.NOM sister.ABS one.F here Melbourne
xàjó nàbɔɪtɔî dà = àmèřikà
and.then one.F in = America
‘I have one sister here in Melbourne and another in America’  CNː23ː27

As mentioned above, there are few quantifiers in Lopit. The role of quantifiers is often carried out by verbs in the form of relative clauses. This is how property concepts and adverbial notions are usually constructed in Lopit (see Chapter 8 for a detailed discussion). The phrase [xijò xóná ləlōŋà], literally ‘people who are many’, is used to convey the sense of ‘a lot’ or ‘many’ people.

(126) tè ləlōtînî nàitî a-îbôŋ náŋ xò = xijò xóná l-ə-lōŋà
from coming my 1SG-meet 1SG.NOM with = people REL.PL SBO-3-many
‘Since my coming, I met many people.’  AD:01:22:19

There are also other expressions which are used in the place of quantifiers. The phrase [tɔ xɔlɔŋi?] has the literal translation of ‘from days’ and is often used to convey what is expressed in English as ‘every day’, ‘all the time’.

(127) á-pót náŋ tòròmîlêt tɔ = xɔlɔŋi?
1SG-clean.N 1SG.NOM cars.ABS from = days
‘I clean cars every day.’  BWː21:58

Lopit does not have quantifiers similar to the English ‘once’, or ‘twice’. It uses the verbal noun derived from the verb /ŋak/, ‘repeat’.

Lopit has several ways of expressing the English 'no-one' or 'nobody'. It can use the interrogative pronoun /ŋa/, 'who', together with the negative verb /ɪɲa/. This can be used when the gender is unknown or if the referents include both males and females.

If the gender of the referents is known, then the words /nabo/, /lobo/ can be used with the noun /tòxòni/, 'person'. The literal translation of (131) is 'I think (that) not (even) one person is coming.' The negative is discussed in section 7.8.

There is no Lopit word corresponding to the word 'any'. The words /xʊna/, 'some.F', and /xʊlak/, 'some.M' are used with the negative verb /ɲa/ to express the English 'not any'.

However, sometimes the Lopit will use the word /ai/, 'any', which is a loan word from the Arabic (aya, 'any').

Adverbial quantifiers are discussed in section 8.3.1.3 on adverbs of degree.
4.6.3 Articles

Lopit does not have distinguishable articles like the English ‘a’ and ‘the’. However, /naba/, ‘one.F’ and /lòbo/, ‘one.M’ can be used as a kind of indefinite article. In (134), the word /lòbo/ cannot be regarded as a numeral. It is used to introduce the topic /toxoni/, ‘man’.

(134) nìà nàfà nà bèrén ò-wò́n lòbò tòxò́nì
that(far).F PST of before 3-exist one.M.ABS person.ABS
á-rá fôrè náñì Arakori
3-be name.NOM his.NOM Arakori

‘A long time ago, there was a (certain) man. His name was Arakori.’ Arakori Story

The words /nia/, ‘that.far.F’, /lia/, ‘that.far.M’ normally function as demonstratives (see the following section, 4.6.4). However, they can be sometimes interpreted as definite articles (i.e. something which indicates “that the NP has an identifiable referent” (Dixon, 2010a, p. 161)). The use of /lòbo/ as an indefinite article and /lia/ as a definite article are illustrated in the following three successive examples from the Squirrel story.

(135) ɔ̀-ɟɔ̀-kùdò dò=łóminì,
3-say squirrel.NOM to=leopard.ABS
jònì ítítíl-ú lòbò mórwò l-e-ítíñ
come.IMP 2.IMP.roll-VEN one.M stone.ABS SBO-3-be.small

‘The squirrel said to the leopard “Come, roll a small stone!”’ EL:52:06

(136) xɔ̀-lòminì x-o-ítítíl-ók
and.then leopard.NOM SEQ-3-roll-DAT

‘Then the leopard rolled it.’ EL:53:40

(137) xɔ̀ mórwò liá x-ò-wú ɲà-lí-k
and.then stone.NOM that.M SEQ-3-go INF-jump-DAT
dò = kwàn nà íkùdò
on=body.ABS of.F squirrel.ABS

‘Then the stone jumped down on to the squirrel’s body.’ EL:55:12

In (135), the squirrel asks the leopard [ítítílú lòbò mórwò leítíñ], ‘roll a small stone’. In (137), the stone which was identified in (135), is described as [mórwò liá], ‘the stone’.

Another example is given in (138) and (139), which are based on Dahl’s connected texts questionnaire for tense and aspect (Dahl, 1985, p. 205). The snake is introduced in (138) and, in (139), is referred to as [mùnù níá], ‘the snake’.

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In these situations, /nia/ and /lia/ appear to have lost their deictic function and have become markers of definiteness. This is in line with the development of the definite article from a demonstrative. As described by Greenberg (1978, p. 61), “it develops from a purely deictic element which has come to identify an element as previously mentioned in discourse.” Thus, we could regard /nia/ and /lia/ as moving between Greenberg’s Stage 0 (demonstrative) and Stage I (definite article) in the cycle of the definite article.

Something similar is observed with temporal demonstratives (see 4.6.4.2 below). The following utterance is a general (indefinite) statement where the speaker says that he/she ate (some) sorghum earlier.

(139) e-ì-xóŋ mùnù náŋ nàŋ dë=xèjòk
3-PVF-bite snake.NOM that.F 1SG.ABS on = leg.ABS
‘The snake bit me on the leg.’ BC:45:58

In the next example, the temporal demonstrative /xunara/, ‘PL.that.IMM.PST’ is used to qualify the sorghum and indicates that “both the hearer and the speaker know about it [i.e. the sorghum]” (DW:20:34).

(140) á-ŋá náŋ ñàmà ãrà
1SG-eat 1SG.NOM sorghum.ABS IMM.PST
‘I ate sorghum earlier.’ DW:19:42

The definite/indefinite distinction is also seen with relative clauses and this is discussed in section 9.5.6 below.

4.6.4 Demonstratives

4.6.4.1 Spatial Demonstratives

Lopit has a three-term system of spatial demonstratives which agree in gender, number and case with their referent. The demonstratives can be distinguished on the basis of the relative position of speaker, hearer and referent. They also have a short form and a long form. They are listed in Table 4-37, showing absolutive case marking.
When the speaker, hearer and referent are close to one another, /ɪnːaŋ/, /ɪnːa/ and /ɪlːɛŋ/, /ɪlː/ are used. In (142), the speaker is introducing the chief to the hearer and all are relatively close to one another.

(142) ɪlːɛŋ xábó lá l-á-rà lòrèwá lití
this.M.NOM chief.ABS REL.M SBO-3-be husband.ABS my.M.ABS
‘This is the chief who is my husband.’  BV:02:07

The demonstratives /naia/, /na/ and /laia/, /la/ are used when the hearer and the referent are both near each other and distant from speaker (but within earshot and the speaker can see the referent). In (143), the speaker is introducing the chief to the hearer.

(143) xábó lá lé l-á-rà lòrèwá lití
chief.ABS that.M.NOM REL.M SBO-3-be husband.ABS my.M.ABS
‘That is the chief who is my husband.’  BV:04:49

The demonstratives /nenio/, /nia/ and /lelio/, /lia/ are used when the speaker and hearer are close to each other and the referent is distant. In the following, the speaker is pointing out the chief.

(144) xábó lèlió lé l-á-rà lòrèwá lití
chief.ABS that.M.NOM REL.M SBO-3-be husband.ABS my.M.ABS
‘That is the chief who is my husband.’  BV: 03:54

This arrangement of demonstratives is described as ‘person oriented’ (Anderson & Keenan, 1985, p. 282; Diessel, 1999, p. 39). I have not observed the other form of demonstrative (‘distance oriented’) in Lopit.

The ‘short’ and ‘long’ forms of the demonstratives can be distinguished in some circumstances. The demonstrative /ɪnːaŋ/, /ɪlːɛŋ/, ‘this’, ‘here’, can be used in a number of
situations. It can be used in a verbless copula, as in the following examples of people being introduced. It can be translated as ‘this is’ or ‘here is’.

(145) xító ìlɛŋ
    child.ABS this.M.NOM
    This is the child.’  AH:01:45:59

(146) ìlɛŋ mòñè ìtì
    this.M.NOM father.ABS lití
    ‘This is my father.’ or ‘Here is my father.’  CN:52:10

It can be used in verbal copula construction, as in the following example of an introduction. Here it is used as a noun modifier.

(147) á-rá xító ìlɛŋ réñì ìtì
    3-be child.NOM this.M.NOM son.ABS lití
    ‘This child is my son.’  AH:01:46:17

The other form of this demonstrative, /ɪlɛ/, /ɪnːa/, is sometimes used differently. It can be used in a copular construction which is similar in form to (146) but different in meaning. It is used when you are pointing out somebody, distinguishing them from other women or girls who might be present. A suitable gloss may be ‘this.one’.

(148) ìná xàñàsì nàìtì
    this.F.NOM sister.ABS lití
    ‘This is my sister.’  ‘This one is my sister.’  CN:52:38

It is used, for example, if someone is playing with a child, is hiding an object in one hand and is holding up both hands. The following utterances might then follow as the speaker encourages the child to guess. The child might point to one hand and say /ɪnːa/, ‘this one’, but she will not say /mːan/. When the child has finished guessing, the speaker will open the hand holding the object and say /mːan/, ‘it is here’, ‘here’. The speaker will not say /mːa/.

(149) x-á-rá xàñà nàìfì? ... xàñà ìnːì
    Q-3-be hand.ABS which hand.ABS this.F.ABS
    ‘Which hand is it? ...This hand?’  CN:53:28

Another difference is illustrated in the following. One cannot replace /ìlɛŋ/ in (147) with /ìlɛ/ when one is introducing somebody.
Thus, there seems to be a difference based whether one is pointing out somebody or something to distinguish him/her/it from others (e.g. /mːa/, /lːɛ/ in (148) and (149)) or whether one is referring to someone who is close to the speaker and hearer and whose reference is clearly known (e.g. /mːɛŋ/, /lːɛŋ/, in (146) and (147)).

4.6.4.2 Temporal demonstratives

Lopit has a system of temporal as well as spatial demonstratives. The temporal demonstratives are fusions of the morphemes /na/, /lɔ/ (see section 3.3.1.4) and the temporal adverbs (see section 8.3.1.1). They show number, gender and case agreement and a list is given in Table 4-38.

Table 4-38: Temporal demonstratives in Lopit

<table>
<thead>
<tr>
<th></th>
<th>from earlier (today)</th>
<th>from yesterday</th>
<th>from some time ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG F</td>
<td>nàrã</td>
<td>nàŋɛlɛʔ</td>
<td>nàfã</td>
</tr>
<tr>
<td>SG M</td>
<td>lârã</td>
<td>lŋɔlɛʔ</td>
<td>lëfã</td>
</tr>
<tr>
<td>PL F</td>
<td>xônãrã</td>
<td>xônɔnɔlɛʔ</td>
<td>xɔnɛfã</td>
</tr>
<tr>
<td>PL M</td>
<td>xûlɔrã</td>
<td>xûlɔŋlgɛʔ</td>
<td>xûlɛfã</td>
</tr>
<tr>
<td>English</td>
<td>‘the one from earlier’</td>
<td>‘the one from yesterday’</td>
<td>‘the one from some time ago’</td>
</tr>
</tbody>
</table>

The demonstratives /lãra/ and /nara/ are derived from the temporal adverb /ara/ which refers to the immediate past, within the last few hours or earlier today. An example is given in (151).

(150) *á-rá xító lːɛ réŋû lití
3-be child.NOM this.M son.ABS my.M.ABS
Attempted: ‘This child is my son.’ AH:01:46:17

In (151), the phrase [tóxõní lârã] implies that the person was here “a little while ago” and “was here while we were here”. The temporal adverbs /ifa/, ‘distant past’ and /ŋɔlɛʔ/, ‘yesterday’ can also be used in a similar way. That is, [tóxõní nàfã], ‘the woman from some time ago’ and [tóxõní nàŋɛlɛʔ?], ‘the woman from yesterday’ are also possible.

Cross-linguistically, demonstratives are usually spatial demonstratives, i.e. based on spatial separation. Demonstratives can also be used to refer to various temporal situations since time is often metaphorically structured in spatial terms. Often the same demonstratives are used so that, for example in English, ‘this year’ refers to the current or present year and ‘that
‘year’ might refer to a year in the past. ‘This’ and ‘that’ do not have a specific spatial reference in those examples. According to Anderson and Keenan, “most languages do not have a system of temporal demonstrative adjectives parallel to (but distinct from) the spatial demonstratives” (1985, p. 297).

Another example, (152), comes from a squirrel story, where the squirrel is asking the leopard to roll a number of different stones. In this example, /lara/ is used as a demonstrative pronoun to refer to the stone that was rolled previously.

(152) i-itítil-ù lèbò lò l-ɔ̀-bòrò táráxò làrá
2SG.IMP-roll-VEN one.M REL.M SBO-be.big from that.IMM.PST.M
‘Roll one which is bigger than the previous one.’ Squirrel Story (58)

Something similar occurs in Maa. The demonstrative ele, ‘this.M.SG’ is combined with the temporal adverb duoo, ‘a short while ago, this morning’ to what Tucker and Mpaayei call a “time reference demonstrative” (1955, p. 18).

(153) Maa  ola-duoo  tungani
this.M.SG-earlier  man
‘That man we mentioned this morning.’ (Tucker & Mpaayei, 1955, p. 18)

### 4.6.5 Possessives

#### 4.6.5.1 Nominal possessives

Noun possessors (and pronominal possessive forms) follow the noun possessed, which is normal for verb-initial languages. Possession is marked with a possession particle or marker (‘of’) which agrees in gender and number with the possessum (see Table 4-39).

<table>
<thead>
<tr>
<th>Table 4-39: Possession particles</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
</tr>
<tr>
<td>masculine</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>feminine</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

These particles have the same form as the relative pronouns (see section 9.5.1). Examples are given for the singular feminine form /na/ in (154) and for the plural feminine form /xuna/ in (155).

(154) éí-wóló  íjòxoi  xàji  nà  xálàŋ  lìà
1PL-see.N 1PL.NOM  house.ABS  of.F  man.ABS  that.M
‘We see the man’s house.’ BT43:21
4.6.5.2 Pronominal possessives

The personal pronouns have a possessive form as shown in Table 4-40. Very rarely, they are used without the possession marker as shown in (156) and (157). Like other modifiers, the possessive pronoun follows the noun. This has only been observed with the informal kinship terms /iŋa/, ‘mum’ and /aba/, ‘dad’. When the more formal word, /moŋe/, ‘father’ is used, the form /lità/ (see Table 4-41) is used, as shown in (158).

(156) eĩ-wólo iŋa iti nàŋ
3 > 1- see.N mum.NOM mine.NOM 1SG.ABS
‘My mum sees me.’ EC:09:50

(157) á-wólo nàŋ ábá ití
1- see.N 1SG.NOM father.NOM mine.ABS
‘I see my dad.’ EC:00:40

(158) iŋé ŋóng tìtì
this.M.NOM father.ABS my.M.ABS
‘This is my father.’ or ‘Here is my father.’ CN:52:10

|  | singular |  | plural |
|---|---|---|---|---|---|---|---|
| person | 1\textsuperscript{st} | 2\textsuperscript{nd} | 3\textsuperscript{rd} | 1\textsuperscript{st} | 2\textsuperscript{nd} | 3\textsuperscript{rd} |
| NOM possessive | itì | ìnó | ì | ì | ìnì | ìcè |
| ABS possessive | ití | ìnó | ì | ì | ìnì | ìcè |
| English | ‘mine’ | ‘yours’ | ‘his’/‘hers’/‘its’ | ‘ours’ | ‘yours’ | ‘theirs’ |

The possessive pronouns are usually combined with the possession markers to form pronominal possessive markers. The pronominal possessives show case agreement with the case of the possessum. They are listed in Table 4-41 showing both nominative and absolutive case marking.
Some examples which illustrate the case marking and the glossing of possessive pronouns are shown in the following examples.

(159) š-t:5xɔ̀  ʔnɛ̀  xɪtɛɲ̃  nàɪtì
3-kill.N  3SG.NOM  cow.ABS  my.F.ABS
  ‘He is killing my cow.’  EC:21:08

(160) e-ɪrɔwɔt  xɪtɛɲ̃  nàɪtì
3-run.away.PFV  cow.NOM  my.F.NOM
  ‘My cow ran away.’  EC:23:20

(161) š-t:5xɔ̀  ʔnɛ̀  xɪtɛɲ̃  nàɪjì?
3-kill.N  3SG.ABS  cow.NOM  our.F.NOM
  ‘Our cow is killing him.’  EC:53:10

It should be noted that the only possessors which show nominative case agreement are possessive pronouns. If the possessor is a noun, then it is in the Absolutive form. This is illustrated in (162) and (163) with the contrast between [xájì nà xábù], ‘the chief’s house’ (where the possessor shows absolutive case) and [xájì nàɪtì], ‘my house’ (where the possessor shows nominative case).
Lopit does not distinguish between alienable and inalienable possession. This is illustrated in (164) and (165), where there is no distinction in the possessive construction between the inalienable /xana/, ‘hand’, and the alienable /buk/, ‘book’.

4.7 Prepositional phrases

Prepositional phrases (PP) consist of a preposition and an noun phrase, where the preposition precedes the NP (the prepositional object). The range of prepositions is Lopit are presented in section 3.3.2. The noun phrase in the PP has absolutive case marking (see section 7.3.5). Some examples of prepositional phrases are given in (166), with [tè fédé ɪnːà], ‘with this gourd’, and in (167), with [dè nàn̂], ‘to me’.

Under some circumstances, the prepositional object is not obligatory. The PP [dè xító], ‘to the child’, is used twice in the construction in (168). However, the second occurrence of the NP [xító] can be omitted, as shown in (169). More research is required to understand this.
4.8 Constituent order in the noun phrase

The head noun normally comes first in the noun phrase. The word order in the noun phrase generally follows the sequence given in (170). There are some exceptions to this (largely relating to information structure) and these are discussed further below.

(170) head noun – possessives/demonstratives – numerals – adjectives and (property concept) relative clauses – other relative clauses – preposition phrases

An example showing all but the last two of these elements is shown in the following.

(171) a-řetā nāŋ bọgro nā̀tī nà kwàn nā̀bō̱tì nā l-ò-dō 1SG-have 1SG.NOM clothing my.F of.F body one.F REL.F SBO-3-be.red
   ‘I have my one red shirt.’ BY:55:47

Demonstratives appear to behave similarly to possessives as illustrated in (172) with /xuna/, ‘those’. They come directly after the noun and precede numerals and adjectives (or relative clauses).

(172) ọ̀-wák nāŋ xisōŋ xòná ūnik l-ò-bwór 1SG-want 1SG.NOM cows.ABS this.F.PL three SBO-3-be.white
   ‘I want these three white cows.’ EL:03:01

Pronominal possessors normally follow directly after the noun and nominal possessors after this. This is illustrated in (173). Note that the expression for ‘shirt’ is [bọgro nà kwàn], ‘clothing of the body’ and that the pronominal possessive is placed within this phrase.

(173) a-řetā nāŋ bọgro nā̀tī nā kwàn nā̀bō̱tì nā ūnik nā l-ò-bwór 1SG-have 1SG.NOM clothing my.F of.F body this.F.PL one.F REL.F SBO-3-be.white
   ‘I have my one red shirt.’ BY:55:47

Demonstratives appear to behave similarly to possessives as illustrated in (172) with /xuna/, ‘those’. They come directly after the noun and precede numerals and adjectives (or relative clauses).
Numbers normally come after the possessors and before relative clauses and adjectives. This applies for both cardinal (174) and ordinal numbers (175).

I have observed some ordering patterns in relative clauses with property stative verbs. It appears that colours come after size, shape and material, although there is some flexibility.

When there are successive relative clauses, the non-initial one can be linked with the sequential marker and without a second relative pronoun. Thus, in (177), it is [nà lòbóðò xòrúŋà], ‘large, round’ (lit. ‘which is large and is round’). Also [nà lárá xîtà?], (lit.) ‘which is wood’, is shortened to [nà xítà?]. However, it is also possible to use a sequence of relative clauses as follows:

As mentioned above, there are a number of situations where the modifier precedes the noun. These situations usually relate to the information structure in the utterance. The quantifier /lòbò/, /nabò/, ‘one.M/one.F’ can be used as a kind of indefinite article (see 4.6.3 above). When it is used as an indefinite article, it is more usual for this quantifier to precede the noun (CN:27:50), especially in the standard way of introducing a topic at the beginning of
a story, as illustrated in (179). However, the consultant did say that it was also possible to
reverse the order and say [tɔxɔnĩ lɔbɔ] in (179) (CN:26:56).

(179) niá nafá nà bɛrɛn ɔ-wɔn lɔbɔ tɔxɔnĩ
that(far).F PST of.F before 3-exist one.M person.ABS
ára fóɾɛ Arakori
3-be name Arakori

‘A long time ago, there was a (certain) man. His name was Arakori.’ CN:25:45

Another example of /lobo/ as an indefinite article placed before the noun is given in (180).

(180) ɔ-ŋɔ̀ ũkùdɔ̀ dɔ = lɔmĩnĩ,
3-say squirrel.NOM to = leopard.ABS
jɔŋ ɪtɪtɪl-ũ lɔbɔ móɾwɔ l-e-ɪtɪŋ
come.IMP 2SG.IMP.roll-VEN one.M stone.ABS SBO-3-be.small

‘The squirrel said to the leopard “Come, roll a small stone!”’ EL:52:06

An example of /lobo/ as a numeral and placed after the noun ([iɾasí lɔbɔ], ‘one brother’) is
given in the following.

(181) a-ɨjeɪtɔ̀ náŋ iɾasí lɔbɔ íŋ xàjó lọbɔìtɛ dà = ảmɛrǐkà
1SG-have 1SG.NOM brother.ABS one here and then one in = America

‘I have one brother here and one in America’ DS:24:36

It is also possible to place other numerals in front of noun. In the following example, the
phrase [wʊnɪk lɔbɔsĩ], ‘three pots’, rather than [lɔbɔsĩ wʊnɪk] is used. This is because (as
part of the story) the narrator is emphasizing the number three (it is unexpected that so
many pots would be broken, DS:10:50).

(182) x-o-ípák ɨxùrak ɲa-dùmú nàbó lɔbɔcí niá
SEQ-3-repeat Ihurrak INF-take one pot.ABS that.F
lɛfɛ wʊnɪk lɔbɔsĩ l-ò-tùl-ò-rì
until three pots.ABS SBO-3-break-MI-IT

‘And Ihurrak took another pot again until three pots were broken.’ DS:09:41

Sometimes adjectives can come in front of the noun, although this only been observed in
story telling when it is done with true adjectives, as shown with /imura/, ‘smelly.F’ and
/lɔrɔxul/, ‘clever.M’ in (183) and (184). It is unlikely to happen with relative clauses (see
section 9.5.2).
Prepositional phrases (PPs) come later in the noun phrase. In example (185), the temporal PP precedes the locative PP. However, there does not appear to be any particular order and the reverse is also possible, as shown in (186).

(183) x-a-íxùmá-rí náŋ imùrã ñábùrã ímá ñò?
Q-1SG-do-INS 1SG.NOM smelly.F wound this.F what
‘What am I going to do with this smelly wound?’ EL:31:24

(184) xɔjɔ lɔxùrɔl ìkùdɔ x-ɔ-ìtífrãŋ
and.then clever.M squirrel SEQ-3-answer
‘And the clever squirrel said,’ Squirrel story (17)

Prepositional phrases (PPs) come later in the noun phrase. In example (185), the temporal PP precedes the locative PP. However, there does not appear to be any particular order and the reverse is also possible, as shown in (186).

(185) xígíɡíl-ìtã xúnãitũ xùná màŋà nàìfà bërën dɔ = lɔʃárũk
thought-PL my.F.PL of.F.PL life.ABS of.F.PST before at=Losharuk
‘My thoughts on living a long time ago in Losharuk ’ CK:59:56

(186) xígíɡíl-ìtã xúnãitũ dɔ = màŋà dɔ = lɔʃárũk nàìfã bërën
thought-PL my.F.PL of=life at=Losharuk of.F.PST before
‘My thoughts on living in Losharuk a long time ago ’ EL:01:03:34
Chapter 5  The Verb: Overview

5.1 Introduction

In this chapter, I provide an overview of the verb, with particular emphasis on the morphology. In section 5.2, I describe some of the main features of the verb, including the two verb classes; the structure of the verb roots, most of which are CVC or CVCV; the way in which affixes are ordered in the verb; the five ways in which infinitives are constructed and two ways in which the root is modified. In the following section, 5.3, I describe the pronominal marking prefixed to the verb. Like other Eastern Nilotic languages, the verb shows subject and object marking. Finally, in section 5.4, I describe the various forms of derivational marking on the verb, including the causative, dative, instrumental and directional derivations.

The aspectual and modal systems in Lopit are quite complex and, because of this, I have presented them separately, in Chapter 6. There is considerable interaction between the form of the verb and the overall clayuse structure and, for this reason, I discuss such issues as transitivity, interrogatives and negation in Chapter 7 on Basic Sentence Structure.

5.2 Key features of the verb

5.2.1 Verb classes

Lopit has two classes of verbs, one which is characterised by a root-initial close front vowel (Class II) and one in which the root is consonant-initial (Class I). Table 5-1 shows some examples. Like Lopit, other Eastern Nilotic languages have two verb classes (Dimmendaal, 1983c, p. 305; Tucker & Bryan, 1966; Vossen, 1982, p. 194).

<table>
<thead>
<tr>
<th></th>
<th>Class I</th>
<th>Class II</th>
</tr>
</thead>
<tbody>
<tr>
<td>bak</td>
<td>‘hit’</td>
<td>ibor ‘break’</td>
</tr>
<tr>
<td>daxa</td>
<td>‘eat’</td>
<td>idoŋ ‘hit’</td>
</tr>
<tr>
<td>kem</td>
<td>‘try’</td>
<td>ikwaŋ ‘swim’</td>
</tr>
<tr>
<td>lum</td>
<td>‘punch’</td>
<td>ilem ‘tell’</td>
</tr>
<tr>
<td>ɲɔf</td>
<td>‘hide (oneself)’</td>
<td>ɲɔf ‘hide (something)’</td>
</tr>
<tr>
<td>mura</td>
<td>‘smell badly’</td>
<td>mura ‘be reconciled’</td>
</tr>
<tr>
<td>ɲɛɾ</td>
<td>‘fetch’, ‘run’</td>
<td>ɲɛɾ ‘be brave’</td>
</tr>
</tbody>
</table>
There is sometimes a semantic relationship between the two classes in Lopit. The verbs /ŋɔf/, 'hide (oneself)' and /ɪŋɔf/, 'hide (something)' are examples of this, as shown in (187) and (188). Only a few examples have been observed.

(187) 5-ŋɔf-ŋ xitéŋ dè = tím 3-hide-IPFV cow.NOM in = bush
‘The cow is hiding in the bush.’ BC:10:58

(188) a-ɪŋɔf náŋ xitéŋ 1SG-hide.N 1SG.NOM cow.ABS
‘I hid the cow.’ BC:12:33

In Lopit words, the [+ATR] vowel /i/ most often co-occurs with other [+ATR] vowels and the [−ATR] /i/ most often co-occurs with other [−ATR] vowels, both in inflected forms (given the vowel harmony process that occurs), and as a general tendency in roots (Billington, 2017, p. 30). For Class II verbs, the close-front vowel which marks the class will therefore typically be either [+ATR] /i/ or [−ATR] /i/ depending on whether the rest of the root has either [+ATR] or [−ATR] vowels. However, sometimes there are exceptions to this, whereby both [+ATR] and [−ATR] vowels can occur with the [−ATR] vowel /a/. This is shown in the minimal pair with two Class II verbs /icak/ and /ɪcak/ in (189), taken from Billington (2017, p. 131). In this thesis, I use the abbreviation iCVC to stand for both iCVC and iCVCV verb structures.

(189) (a)  x-ɪcàk INF-smash
    (b) x-ɪcàk INF-start

Dimmendaal (1983c) proposes that the close-front vowel which marks Class II verbs in Nilotic languages was originally used as a causative marker with intransitive verb roots. The root-initial close front vowel in /ŋɔf/ could be regarded as an example of this. That is, the verb /ŋɔf/ could be translated as ‘cause to hide’.

This function has been retained in the Kalenjin group of Southern Nilotic languages but in the Eastern Nilotic languages the close front vowel no longer has a separate morphological status (Dimmendaal, 1983c, p. 271). This is supported by the verbs in the last two rows of Table 5-1 where there is no semantic relationship between similar sounding verbs in the different classes.

5.2.2 The structure of the verb root

Most verb roots in Lopit are either CVC or CVCV, or, for Class II verbs, iCVC and iCVCV. These verb forms account for around 68% of the 385 verbs currently in the lexical database.
For the purposes of this study, the group of CVC and iCVC are termed sub-class (a) and the group of CVCV and iCVCV are termed sub-class (b). These sub-classes also include some roots with geminate onsets (/tː/, /nxː/, /jː/, /wː/, /kː/) as well as roots with a glide (G) after the initial consonant. Thus, the two sub-classes could be distinguished as (i)C(C)(G)VC (sub-class (a)) and (i)C(C)(G)VCV (sub-class (b)). There are significantly more sub-class (a) verbs than sub-class (b) verbs. These sub-classes are differentiated because they have different ways of inflection for aspect marking. This is discussed in section 6.4.2 below.

The other main root structures observed have the form C(C)(G)V for Class I verbs and iC(C)(G)V for class II verbs. These verbs are discussed in section 6.4.2.5 and tend to follow the pattern of sub-class (a) verbs for aspect marking. A list of the observed verb roots is shown in the Table 5-2.

<table>
<thead>
<tr>
<th>Structure</th>
<th>Example</th>
<th>English</th>
<th>Structure</th>
<th>Example</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>ca</td>
<td>‘dance’</td>
<td>iCV</td>
<td>rba</td>
<td>‘arrive’</td>
</tr>
<tr>
<td>CːV</td>
<td>jːo</td>
<td>‘cry’</td>
<td>iCːV</td>
<td>nwːa</td>
<td>‘care for’</td>
</tr>
<tr>
<td>CGV</td>
<td>rjo</td>
<td>‘tread on’</td>
<td>iCGV</td>
<td>ifwo</td>
<td>‘cook’</td>
</tr>
<tr>
<td>CVC</td>
<td>mat</td>
<td>‘drink’</td>
<td>iCVC</td>
<td>ɾdim</td>
<td>‘build’</td>
</tr>
<tr>
<td>CːVC</td>
<td>lːak</td>
<td>‘untie’</td>
<td>iCːVC</td>
<td>iːjen</td>
<td>‘learn’</td>
</tr>
<tr>
<td>CGVC</td>
<td>kwed</td>
<td>‘sing’</td>
<td>iCGVC</td>
<td>ɾkwəŋ</td>
<td>‘swim’</td>
</tr>
<tr>
<td>CːVCV</td>
<td>dːaxa</td>
<td>‘eat’</td>
<td>iCːVCV</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>CːːVCV</td>
<td>tːːɔxɔ</td>
<td>‘kill’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5.2.3 The structure of the verb complex

There are many inflectional and derivational possibilities for the verb in Lopit. Verbs can be marked for person, number, aspect, mode, voice, directionality and the presence of applicative derivations. In addition, infinitives, interrogatives, and imperatives are marked on the verb.

It may be possible to describe the verb morphology of Lopit as agglutinative, whereby distinct morphemes can be assigned to specific positions in a template. This has been done for Turkana (Dimmendaal, 1983b, p. 96) and for Il-Keekonyokie Maa (Rasmussen, 2002, p. 29). A possible template for Lopit verbal morphology is shown in Table 5-3.
An example of a rather complex verb showing sequential, pronominal, modal, and aspectual prefixes and a derivational suffix is shown in (190).

(190)  x-á-ŋa-ř-á-ŋa-tá-ř-0-0-0
SEQ-1SG-IRR-PFV-kill-VEN
‘...and I should have killed (him)’   Ikudo story

There are a number of verbal affixes forms which have more than one function. These are listed in Table 5-4, together with their functions and a reference to where they are discussed in this thesis.

<table>
<thead>
<tr>
<th>form</th>
<th>function</th>
<th>reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>x-</td>
<td>interrogative</td>
<td>7.7</td>
</tr>
<tr>
<td>x-</td>
<td>sequential</td>
<td>9.1.2</td>
</tr>
<tr>
<td>x-</td>
<td>infinitive</td>
<td>5.2.4</td>
</tr>
<tr>
<td>ŋa-</td>
<td>infinitive</td>
<td>5.2.4</td>
</tr>
<tr>
<td>ŋa-</td>
<td>perfective</td>
<td>6.4.2.6</td>
</tr>
<tr>
<td>-a,-o</td>
<td>imperfective</td>
<td>6.4.2.1</td>
</tr>
<tr>
<td>-a,-o</td>
<td>middle voice</td>
<td>7.4.3</td>
</tr>
<tr>
<td>-a,-o</td>
<td>detransitivization</td>
<td>7.4.2</td>
</tr>
</tbody>
</table>

A linear or agglutinative model (as in Table 5-3) may not be appropriate for Lopit since the meaning of the verb cannot always be determined by studying the individual morphemes in the verb. This is partly because some forms (such as the prefix /x-/ or the suffix /-a/, as shown in Table 5-4) have more than one function. In addition, there are sometimes multiple forms for the same function. For example, aspect marking is determined by verb root structure (see section 6.4.2). Further examples occur with the combination of the perfective
and the directionals (i.e. ventive/itive). Payne discusses this in relation to Eastern Nilotic languages and states that the morphemes in the verbs in these languages “might not be so cleanly separable as one would expect in a prototypical agglutinative language” (2015b, p. 214). She argues that, for Maa, there is “no one structure, template or constructional pattern that fits all possible verbs in Maa” (2015b, p. 224). She states that, for Maa verbs, the range of “co-occurrence restrictions and multiple form-to-meaning relationships indicate that something more like a Word-and-Paradigm framework could provide a more accurate technical account of possible word forms” (2015b, p. 225).

5.2.4 The infinitive

There is a range of ways in which the infinitive is marked in Lopit. I have identified five main forms. Some of these forms are determined by the verb sub-class, which is discussed in section 5.2.2 above. Infinitives can be marked for aspect and can have derivational suffixes. The main feature which distinguishes infinitives from finite verbs is that infinitives have no subject or object marking. Finite verbs do have subject (and sometimes object) marking. The five infinitive forms are:

- The unmarked form of the stem for Class Ib verbs
- The imperfective form of the stem for Class Ia verbs
- The marker /x-/ for Class II verbs and for Class Ia perfective verbs which are marked /(x)i-/
- The marker /ŋa- (and perhaps /xa-/) which is used for infinitives with a derivational suffix.
- Some Class Ia stative property stems are marked with suffixes (e.g. /-i/, /-an/)

The infinitive for Class Ib verbs is usually the unmarked root as in (191). The infinitive is marked by the prefix /x-/ for class II verbs as in (192). For comparison, an inflected form of /wolo/, ‘see’, is shown in example (217).

(191) ë-wák ñnë wóló diktòr
3-want 3SG.NOM INF.see doctor
‘He wanted to see the doctor.’ AC:01:55:00

(192) ā-wú náŋ x-idáb förè
1SG-go 1SG.NOM INF-sing song.ABS
‘I’m going to sing a song.’ CV:44:33

24 (Anderson, 1977; Matthews, 1972)
It is also possible to mark the infinitive with aspect. The following two examples show an imperfective and a perfective infinitive respectively. The verb /mat/, ‘drink’ belongs to Class Ia (see section 6.4.2.1 below). The imperfective form of the finite verb is /mata/ and the perfective is /imat/. It appears that, when the perfective prefix /i-/ is used in the infinitive, it behaves like a Class II verb and the infinitive marker /x-/ is used.

(193) ŋá l-e-icák mátà kófi
who SBO-3-start.N INF.drink.IPVF coffee.ABS
‘Who started drinking coffee?’ DC:31:14

(194) ŋá l-e-icák x-í-mát kófi
who SBO-3-start.N INF-PFV-drink coffee.ABS
‘Who drank coffee first?’ DC:31:01

On occasions, the infinitive is marked with the prefix /ŋa-/ This occurs when the verb root is marked with a derivational suffix, such as the applicative, ventive or itive. An example of this is given in (195), which is a variation of example (192), in which the root of the verb /idɔl/, ‘sing’ has the suffix /-k/. In this situation, this verb has a benefactive meaning.

(195) á-wú náŋ na-idɔl-k ljà fôrè
1SG-go 1SG.NOM INF-sing-DAT 2SG.ABS song.ABS
‘I’m going to sing you a song.’ CV:45:35

Another example occurs when the ventive suffix /-u/ is placed on the verb /jin/, ‘go through’, in (196).

(196) fnjá l-é-rúk ná-jǐŋ-ú tɔ=ɔnx=xóm
not.be SBO-3-like INF-go.through-VEN from=cave.ABS
‘He doesn’t want to come out of the cave’ Mountain hunting story

I have observed some variation amongst the speakers on the prefix used when the infinitive is marked with a derivational suffix. Sometimes the prefix used is /xa-/ instead of /ŋa-/, as shown in (197).

(197) á-wák náŋ xà-xoxól-ú tɔ̀rɔmìlè
1SG-want 1SG.NOM INF-steal-VEN car.ABS
‘I want to steal a car.’ BR:56:52

A different speaker gave the version in (198). The reasons for this variation are not yet understood. The change appears to be lenition of the velar nasal to the velar fricative.
Infinitives of Class I stative property verbs often have a suffix added to the root. A list of these is given in Table 5-5 and shows that endings like /-i/, /-on/ and /-an/ are used. Some examples of infinitive forms of stative property verbs are given for Class I verbs in (200) and (201). I have glossed these suffixes as INCH (inchoative), since they could be interpreted as inchoative forms in the sense that ‘I don’t want to fat’ could be interpreted as ‘I don’t want to become fat’. This is discussed further in the section on the inchoative, in section 6.4.4.3.

Table 5-5: Infinitives and finite forms of stative property verbs

<table>
<thead>
<tr>
<th>Class I</th>
<th>Class II</th>
</tr>
</thead>
<tbody>
<tr>
<td>root</td>
<td>infinitive</td>
</tr>
<tr>
<td>liba</td>
<td>libe-i</td>
</tr>
<tr>
<td>muno</td>
<td>mune-i</td>
</tr>
<tr>
<td>an</td>
<td>an-i</td>
</tr>
<tr>
<td>nok</td>
<td>nox-on</td>
</tr>
<tr>
<td>jori</td>
<td>jori-ji</td>
</tr>
<tr>
<td>o</td>
<td>o-n</td>
</tr>
<tr>
<td>sam</td>
<td>sam-an</td>
</tr>
<tr>
<td>waj</td>
<td>waj-an</td>
</tr>
<tr>
<td>boro</td>
<td>boro</td>
</tr>
<tr>
<td>mwei</td>
<td>mwei</td>
</tr>
</tbody>
</table>

Note that, for some Class I stative property verbs, there is no difference between the infinitive and the root (e.g. /bworo/ and /mwei/ in Table 5-5). This is normally the case for non-stative Class I verbs.
Class II stative property verbs form infinitives in the same way as other Class II verbs, i.e. with the prefix /x-/.

Some examples are listed in Table 5-5. An example of the infinitive form of a Class II stative property verb is given in (202).

(201) á-wák náŋ x-isàgà
     1SG-not.be 1SG.NOM INF-be.tall
     ‘I want to be tall.’ DR:18:19

The verbal noun or gerund often has the same form as the infinitive (see section 4.5 on verbal nominalisation). The verb /ɪdɔlɔ/, ‘sing’ could be regarded as an infinitive in (202) or as a verbal noun in (203).

(202) ᶣaître l-e-ɪcák x-ɪdɔlɔ
     who SBO-3-start.N INF-sing
     ‘Who will start to sing?’ BU:56:09

(203) ᶣaître l-e-ɪcák x-ɪdɔlɔ
     who SBO-3-start.N VN-sing
     ‘Who will start singing?’ BU:56:09

On the other hand, the word [xìfìlà], ‘wait’ in (204) must be understood as a verbal noun. This is the case because it is qualified by the prepositional phrase [nà xábó], ‘of the chief’.

(204) 3-bórɔ ijàkoi x-ítíl-à na xábó
     3-be.big 1PL.ABS VN-wait-IMPV of.F chief.ABS
     ‘We have waited long for the chief.’ (lit. ‘The waiting for the chief is big to us.’)
     BH:28:46

It is also possible to string infinitives together as in (205).

(205) á-rémik náŋ ᶣainó wòlò àkìm
     1SG-be.able 1SG.NOM INF-go INF-see doctor
     ‘I can go to see a doctor.’ AA:27:38

This construction has only been noticed for the verbs /ŋaino/, ‘go’ and /wu/, ‘go’ and may indicate some kind of process where these verbs are being grammaticalised into an auxiliary.

5.2.5 Root modification

5.2.5.1 Number marking with the root

There are three verbs which exhibit number agreement in the root of the verb (‘pluractionality’). They are listed in the following table.
Table 5-6: Number marking on verbs

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋaino</td>
<td>ŋaifie</td>
<td>‘go’</td>
<td></td>
</tr>
<tr>
<td>wu</td>
<td>fwo</td>
<td>‘go’</td>
<td></td>
</tr>
<tr>
<td>ɪŋ</td>
<td>fanu</td>
<td>‘come’</td>
<td></td>
</tr>
</tbody>
</table>

Tucker and Bryan report that many languages in north-eastern Africa have a different stem in the plural for verbs such as ‘to go’ or ‘to come’ (1966, p. 13). Pluractionality, in the wider sense (i.e. more than ‘go’, ‘come’ verbs) is common amongst African languages (Dimmendaal, 2014).

5.2.5.2 Reduplication

In Lopit, the most common modification of the root is reduplication. This is generally used to indicate a repeated or habitual action. Usually, there is only partial reduplication, involving the first CV of the verb root, as shown with /dʊŋ/, ‘go out’ in the following.

(206) 6-dú-dúŋá xímá bi dè = iŋxì
    3-REDUP-go.out fire.NOM indeed on = path.ABS
    ‘The fire kept going out on the way.’ Ikudo story (32)

The reduplication is similar with Class II verbs. With the verb /ŋɔf/, ‘hide’, the first CV, /ŋɔ/, of the verb root is reduplicated to convey a sense of repetition. The reduplicated syllable is placed after the Class II marker /ɪ/.

(207) xɔŋ j áw:ɔŋ x-o-ŋôt-ú mɔr5? xùré
    and.then red monkey SEQ-3-take-VEN beans some.F
    ‘And then the red monkey took some beans…

x-o-ŋ-ŋɔ-f-ak tɔ = kwàn
    SEQ-3-II-REDUP-hide-DAT on = body
    and hid them on his body.’ Ikudo story (30)

When the verb root has a glide, the glide is elided in reduplication. An example for the verb /fwɔ/, ‘cook’ is given in (208). This phonological process is discussed in section 2.4.3.

(208) a-ɪ-fó-fwó
    1SG-II-REDUP-cook
    ‘I repeatedly cook.’ DK:01:00:49

Reduplication can often involve a shift in meaning and in these situations can be regarded as derivational. The verb /bak/ can be translated as ‘hit’, ‘beat’. The first CV of the stem is
reduplicated to give a word that can be translated as ‘repeatedly hit’ or it can have an extended meaning which can be translated as ‘abuse’ or ‘bully’.

(209) a-bá-báx-à náŋ würè xù-ná iti
1SG-REDUP-hit-IPFV 1SG.NOM children.ABS of.F.PL mine
‘I (regularly) beat my children.’ (‘I abuse my children.’) AD:40:43

The verb /ijën/, ‘know’ can be reduplicated to produce the verb /ijègejên/, ‘learn’.

(210) a-í-jé-jiěn-á náŋ ijlis
1SG-II-REDUP-know-IPFV 1SG.NOM English
‘I’m learning English.’ BX:35:54

The verb /daxa/, ‘eat’ can have an extended meaning which can be translated as ‘borrow without returning’ as in the following relative clause. This can be regarded as a lexicalisation.

(211) ....lè l-è-dá-dáxá sàŋ xù-ná xijiò
RELM SBO-3-REDUP-eat things.ABS PL-of.F people.ABS
‘…who borrows things (and doesn’t return them)’ 2011:10:20:26:42

The use of reduplication to convey iterative, continuous and habitual aspect is discussed further in section 6.4.3.4.2.

Reduplication of the verb root is different in other Eastern Nilotic languages. In Ateso, reduplication maybe partial, like Lopit, or complete. For complete reduplication of a CVC root, an epenthetic vowel is inserted (Barasa, 2017, p. 168). Turkana is similar to Ateso (Dimmendaal, 1983b, p. 104) and so is Maa (Tucker & Mpaayei, 1955, p. 164). An example from Ateso is shown in (212).

(212) Ateso é-gwāŋ-á-gwāŋ-tè à-cùpàè
3-break-EV-break-PL PL-bottle/ABS
‘They break the bottles frequently.’ (Barasa, 2017, p. 168)

Like Lopit, reduplication in other EN languages can involve shifts in meaning including intensity as well as frequency (Dimmendaal, 1991, p. 277). In Maa, these shifts can be an increase in intensity or difficulty (partial reduplication) or a diminution in the force of the action (complete reduplication), as illustrated in (213) and (214) respectively (with my glossing).

(213) Maa a-bo-ból
INF-REDUP-hold
‘to hold with difficulty’ (Tucker & Mpaayei, 1955, p. 164)
5.3 Subject and object marking

5.3.1 Subject marking

The system of prefixation in which the pronominal prefix marks the number and person of the subject is shown in Table 5-7. The first, second and third person singular markers (/a-, /i-, /ɛ-/) are widespread in Nilo-Saharan languages (Greenberg, 1966, p. 86). Note that these are [-ATR] in their underlying form but can be realised differently according to ATR vowel harmony and mid-vowel assimilation processes. These processes are discussed in sections 2.4.1 and 2.4.2 respectively.

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>a-</td>
<td>ei-, ei-</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>i-</td>
<td>i-</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>ɛ-, ɛ-, ɔ-, ɔ-, e-, e-, ɔ-</td>
<td>e-, e-, ɔ-, o-</td>
</tr>
</tbody>
</table>

Lopit pronominal markers can be described as Stage II under Creissels’ three stages of pronominal markers (2005, p. 44). Stage II markers are “obligatory, even if a noun phrase or free pronoun referring to the same entity is present in subject or object function, whereas the corresponding noun phrases or free pronouns are not obligatory constituents of the clause” (2005, p. 45). The following examples (215) and (216) are taken from the second narrative given in Appendix C. The subject of the first utterance, i.e. /ikudo/, is the subject of the clauses in (216). There are no nouns or free pronouns in the clauses on (216) and the squirrel is referenced through the marking in the verbs /oxut/ and /oxutori/.

(214) Maa é-tá-wáŋ-í-wáŋ-à
3-PRF-REDUP-E-clear-PRF
‘It has cleared a bit.’ (Tucker & Mpaayei, 1955, p. 164)

(215) ě-máŋá ḵkúdò dò = Ḹf
3-live.N squirrel.NOM in = ground.ABS
‘The squirrel lives in the ground.’ 20170327-9-DO

(216) ò-xút xà̀ ḵxút-ò̀ Ḹf
3-dig.N home.ABS 3-dig-IT in = ground.ABS
‘His digs his house, he digs into the ground.’ 20170327-9-DO
5.3.2 Subject and object marking

There are some circumstances where the verb shows object as well as subject marking. Lopit distinguishes between participants in the speech act (i.e. 1st and 2nd persons) and non-participants. When the object is a non-participant, the normal third person subject marker is used. When the object is participant in the speech act, a different prefix is used. This prefix is a portmanteau prefix and cannot simply be derived from the subject prefixes shown in Table 5-7. The range of subject/object markers is shown in Table 5-8, where those referring to speech-participating objects is shown in grey shading. Note that there are just two forms. The prefix /æɪ-/ is used for first person subject and second person object. All other pronominal marking involving speech act participants uses the prefix /ɛɪ-/.

The prefix /ɛɪ-/ is used for second person subject and first person objects (both singular and plural). This prefix is also used for first person plural subject and second person object (both singular and plural). The prefix /ɛɪ-/ is used for third person subject and first and second person objects (both singular and plural).

Table 5-8: Number/person marking for subjects and objects

<table>
<thead>
<tr>
<th>subject</th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>1PL</th>
<th>2PL</th>
<th>3PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>-</td>
<td>aí-</td>
<td>aí-</td>
<td></td>
<td>aí-</td>
<td></td>
</tr>
<tr>
<td>2SG</td>
<td>ëí-</td>
<td>-</td>
<td>i-</td>
<td>ëí-</td>
<td>-</td>
<td>i-</td>
</tr>
<tr>
<td>3SG</td>
<td>ëí-</td>
<td>ëí-</td>
<td>eí-</td>
<td>ëí-</td>
<td>ëí-</td>
<td>èí-</td>
</tr>
<tr>
<td>1PL</td>
<td>-</td>
<td>ëí-</td>
<td>eí-</td>
<td>-</td>
<td>ëí-</td>
<td>èí-</td>
</tr>
<tr>
<td>2PL</td>
<td>ëí-</td>
<td>-</td>
<td>i-</td>
<td>ëí-</td>
<td>-</td>
<td>i-</td>
</tr>
<tr>
<td>3PL</td>
<td>ëí-</td>
<td>ëí-</td>
<td>èí-</td>
<td>ëí-</td>
<td>ëí-</td>
<td>èí-</td>
</tr>
</tbody>
</table>

The following examples illustrate the use of these markers. When both subject and object are non-participants, the normal third person subject marker is used, as shown in (217).

(217) ó-wòlò ìkùdò xítò
3-see.PFV squirrel.NOM child.ABS
‘The squirrel saw the child.’ CO:01:07:09

When the object is a discourse participant (and in the first person) and the subject is in the third person, the prefix [ëí-], glossed as 3 > 1, is used, as in (218). Note that the mid-vowel assimilation, which occurs with [ówòlò] in (217), is not observed in [ëiwòlò] in (218).

(218) ëí-wòlò ìwò:ñò nàñ
3 > 1- see.N monkey.NOM 1SG.ABS
‘The monkey sees me.’ BR:10:12

115
The prefix [ɛɪ-] is used for a second-person object and third-person subject as shown in (219). This prefix is glossed as 3>2.

(219) ɛɪ-rómá-k íŋé ijè máná
3>2-plough.IPFV-DAT 3SG.NOM 2SG.ABS field.ABS
‘He ploughs the field for you.’ AJ:19:36

The prefix [ɛɪ-] is used for a third person subject and a first person object as shown in (220).

(220) ɛi-wóló ícèjá ijóoxí x-ò-icúl
3>1-see 3PL.NOM 1PL.ABS SEQ-3-go.straight
‘They see us and go straight.’ CS:07:30

The prefix, [aɪ-] is used for the first person subject and second person objects as shown in (221) and (222).

(221) aɪ-rómá-k náŋ ijè máná
1>2-plough-DAT 1SG.NOM 2SG.ABS field.ABS
‘I plough the field for you.’ (lit. ‘I plough you the field.’) AJ:21:08

(222) aɪ-báxá náŋ ìtcì
1>2-beat.N 1SG.NOM 2PL.ABS
‘I will beat you.’ CS:16:35

Both questions and answers use discourse participant markings. Example (223) shows the participant marking for the verb /rɔmɔ/, ‘plough’, ‘dig’.

(223) x-ɔi-rómá-k ìjé náŋ máná
Q-2>1-plough-DAT 2SG.NOM 1SG.ABS field.ABS
‘Can you plough me the field?’ BR:36:05

Other examples which show this distinction are given in (224) and (225).

(224) náŋ lɛi-wóló náŋ
who SBO-3>1-see 1SG.ABS
‘Who saw me?’ BF:37:04

25 The prefix /x-/ (which can be a question, imperative or a sequential marker) always takes /ɔ-/ rather than /ɛ-/ for third person subject marking and /ɔɪ-/ instead of /ɛɪ-/ when this prefix is used. See section 9.1.2 for further information.
Participant marking is also used with imperatives. In (226), the imperative prefix is different when the object is a speech act participant compared to when it is not, as in (227). Note that, for Class II verbs, the simple imperative (addressing 2SG or 2PL) uses the verb root, which is segmentally the same as the 2SG and 2PL form of the verb (although the tones are different). This is discussed further in section 6.6.1 on imperatives.

(226) xoi-ibíró-k  nàn  kùrù
IMP.2 > 1-throw-DAT  1SG.ABS  ball.ABS
‘Throw me the ball.’  BN:33:53

(227) ibíró-k  ínè  kùrù
IMP.throw-DAT  3SG.ABS  ball.ABS
‘Throw him the ball.’  BN:35:18

Similar kinds of subject/object marking are observed in other Eastern Nilotic languages. The person markers for Turkana and Maa are shown in Table 5-9. Turkana prefixes /k-/ to the subject marker if speech participants are involved as direct or indirect objects (Dimmendaal, 1983a, 122). In these cases, the marking of person agrees with the direct or indirect object.

<table>
<thead>
<tr>
<th>OBJ →</th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
<th>OBJ →</th>
<th>1SG</th>
<th>2SG</th>
<th>3SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJ ↓</td>
<td></td>
<td></td>
<td></td>
<td>SUBJ ↓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1SG</td>
<td>k-à-</td>
<td>á-</td>
<td>1SG</td>
<td>áá-</td>
<td>á-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2SG</td>
<td>k-ì-</td>
<td>í-</td>
<td>2SG</td>
<td>kí-</td>
<td>í-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>k-à-</td>
<td>k-ì-</td>
<td>3SG</td>
<td>ã-à</td>
<td>ã-ì</td>
<td>ã-é</td>
<td></td>
</tr>
<tr>
<td>1PL</td>
<td>kì-</td>
<td>kì-</td>
<td>1PL</td>
<td>kì-</td>
<td>kì-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2PL</td>
<td>k-ì-</td>
<td>í-</td>
<td>2PL</td>
<td>kí-</td>
<td>í-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>k-à-</td>
<td>k-ì-</td>
<td>3PL</td>
<td>ã-à</td>
<td>ã-ì</td>
<td>ã-é</td>
<td></td>
</tr>
</tbody>
</table>

The Turkana system is essentially a direct/inverse one. The prefix /k-/ indicates that there is a speech act participant object, and then the form of the prefix is determined by whether the subject is a participant or non-participant. Note that, in the case of a 1PL subject and a 2SG object, one might expect the prefix to be /k-kì-/, since the 1PL marker is /kì-/. However, as Dimmendaal states, double consonants do not occur in Turkana (1983a, 122) and the...
form /kɪ-/ is used. Maa shows a similar pattern to Turkana, except that the prefixes /á-á/ or /áá-á/ are used instead of /k-á-/ (Rasmussen, 2002).

Table 5-10 shows a comparison of the three languages for the singular marking for those cases where speech act participants are objects in the singular. The Turkana markers could be interpreted as a combination of an inverse marker (/k-/ and a person marker (/a-/ first; /á-/ second). Something similar may have occurred with Maa, although although the reason for the difference in form between the /kɪ-/ prefix and the /aa-/prefixes is not clear. The Lopit markers do not show much transparency of function except for the 1SG subject and the 2SG object marker (/aɪ-/).

Table 5-10: Singular person markers where the discourse participant is the object

<table>
<thead>
<tr>
<th>subject</th>
<th>object</th>
<th>Lopit</th>
<th>Maa</th>
<th>Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>2SG</td>
<td>aɪ-á-</td>
<td>k-á-</td>
<td></td>
</tr>
<tr>
<td>2SG</td>
<td>1SG</td>
<td>ė-í-</td>
<td>k-í-</td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>1SG</td>
<td>ė-á-</td>
<td>k-á-</td>
<td></td>
</tr>
<tr>
<td>3SG</td>
<td>2SG</td>
<td>ė-í-</td>
<td>k-í-</td>
<td></td>
</tr>
</tbody>
</table>

5.4 Verb derivational marking

5.4.1 Introduction

Lopit has a range of affixes which are used to form derived verbs. Almost all of these are suffixes attached directly to the verb root. The only exception is the causative marker /tɪtɪ-/ which is placed between the bound pronoun and the verb. Table 5-11 gives a summary. The ditransitive and middle voice suffixes are discussed in sections 7.4.2 and 7.4.3 respectively.

Table 5-11: Derivational affixes

<table>
<thead>
<tr>
<th>function type</th>
<th>function</th>
<th>affix</th>
</tr>
</thead>
<tbody>
<tr>
<td>valancy changing</td>
<td>causative</td>
<td>tɪtɪ-</td>
</tr>
<tr>
<td>dative &amp; benefactive</td>
<td>applicative</td>
<td>-(V)k</td>
</tr>
<tr>
<td>instrumental</td>
<td>applicative</td>
<td>-ri, -ije</td>
</tr>
<tr>
<td>middle voice</td>
<td></td>
<td>-a, -o</td>
</tr>
<tr>
<td>detransitive</td>
<td></td>
<td>-a, -o</td>
</tr>
<tr>
<td>expression of deixis</td>
<td>ventive</td>
<td>-u, -ni</td>
</tr>
<tr>
<td></td>
<td>itive</td>
<td>-ei, -ri</td>
</tr>
</tbody>
</table>
Combinations of suffixes are rare in Lopit and I have identified only one example. This is the combination of the middle voice and the dative markers, as shown in (225).

(228) á-ŋā-wūr-ò-k nāŋ xỳò
1SG-PFV-break-MI-DAT 1SG.NOM leg.ABS
‘I broke my leg.’ AU:33:40

I tested for possible combinations of the ventive and the dative suffixes. The following examples with the verb /bala/, ‘harvest’ show the ventive (229) and the dative (230) suffixes. However, the consultant said that it is not possible to use the word /a-bal-u-k/, ‘1SG-harvest-VEN-DAT’.

(229) á-bāl-ú isō nāŋ ŋāmá
1SG-harvest-VEN FUT 1SG.NOM sorghum
‘I will harvest the sorghum (for myself)’. AS:54:48

(230) á-bālá-k isō nāŋ ɪjè ŋāmá xỳɔ̀
1SG-harvest-DAT FUT 1SG.NOM 2SG.ABS sorghum this.M.PL
‘I will harvest this sorghum for you’. AS:57:02

This is in contrast to some other Eastern Nilotic languages, such as Turkana (Dimmendaal, 1983b, p. 96) and Ateso (Barasa, 2015), where suffixes can be agglutinated and a specific sequence is observed. In Maa, there is some sequencing of suffixes, although the morphology is complex and there are often fusional suffixes (D. L. Payne, 2015b). Payne states that there are some restrictions on co-occurrences in Maa. For example, “the AWAY and TOWARD Directionals and the Dative Applicative are in complementary distribution” (D. L. Payne, 2015b, p. 223). This is thus similar to Lopit.

Lopit derivational affixes are quite similar to those in other Eastern Nilotic languages. A list of the common affixes and their functions is shown in Table 5-12. Examples of the derivational affixes for a range of verbs are shown in the following sections. The roles of some of these affixes (the causative and the applicative – benefactive, dative and instrumental) are discussed in section 7.4.1 in the chapter on basic sentence structure.
Table 5-12: Derivational affixes in Eastern Nilotic languages

<table>
<thead>
<tr>
<th>function</th>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Ateso</th>
<th>Turkana</th>
<th>Toposa</th>
<th>Bari</th>
</tr>
</thead>
<tbody>
<tr>
<td>valency changing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>causative</td>
<td>īt-</td>
<td>īt-</td>
<td>tV-</td>
<td>tV-</td>
<td>it-</td>
<td>tV-</td>
<td>tō-, too-</td>
</tr>
<tr>
<td>dative, applicative</td>
<td>-(V)k</td>
<td>-k, -xi</td>
<td>-(ak(n), -oki(n)</td>
<td>-(V)ki(n)</td>
<td>-ki(n)</td>
<td>-(V)ki(n)</td>
<td>-k</td>
</tr>
<tr>
<td>instrumental</td>
<td>-ri, -ije</td>
<td>-ri</td>
<td>-ie, -ri</td>
<td>-io, -ia</td>
<td>-io, -ori</td>
<td>-ri</td>
<td></td>
</tr>
<tr>
<td>expression of deixis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ventive (TOWARD)</td>
<td>-u, -ni</td>
<td>-u</td>
<td>-u(n)</td>
<td>-u(n)</td>
<td>-u(n), u(n)</td>
<td>-un</td>
<td>-un</td>
</tr>
<tr>
<td>itive (AWAY)</td>
<td>-ei, -ri</td>
<td>-ru</td>
<td>-aa, -aya, -Vr(i)</td>
<td>-a(r), -o(r)</td>
<td>-a(r), -o(r)</td>
<td>-r(V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.4.2 The prefix /īt-/, causative marker

Lopit uses the marker /īt-/ in front of the verb root to mark the causative. The following examples are with the Class I verb /sario/, ‘bathe, wash’. The verb changes from intransitive to transitive.

(231) á-sárió  náŋ
1SG-bathe  1SG.NOM
‘I bathe.’ AX30:15

(232) ī-ítí-sárió  xótőñí  líŋk
3-CAUS-bathe  mother.NOM  baby.ABS
‘The mother bathes the baby.’ AX29:43

Class II verbs behave similarly and the initial close vowel on the verb root coalesces with the final close vowel of the prefix. The following examples contain the verb /icefɔ/, ‘dress, get dressed, dress oneself’.

(233) ī-icefɔ- źitò  xàxfɔ
3-get.dressed-IPFV  child.NOM  alone
‘The girl dresses alone (i.e. dresses herself).’ AX:28:55

(234) ī-ítí-icefɔ- źítőñí  xító
3-CAUS-get.dressed-IPFV  mother.NOM  child.ABS
‘The mother dresses the child.’ AX:27:40

When the causative prefix is used with a Class I verb, the resulting verb behaves like a Class II verb and displays the same prefixes for the infinitive (235) and imperative (236).
However, there is a difference in pronunciation between the imperative of a causative and the imperative of a Class II verb. This is illustrated in (237) with the Class II verb /ibiɾó/, ‘throw’. The pronunciation of the imperative is [xoìbiɾók]; hiatus resolution takes place and the initial vowel of the Class II verb root coalesces with the prefix /xo-/ giving rise to a single syllable production. This contrasts with the example in (236) with the causative form of the verb /ijːen/, ‘know’. Here, the first close front vowel of the causative prefix is produced as a syllable nucleus, rather than coalescing with the second target of the preceding diphthong, and the pronunciation is [xoìtìíjːèn]. The reason hiatus resolution does not take place here may be related to the differing tones on the adjacent close vowels but this is not yet clear. (The imperative is discussed in more detail in section 6.6.1).

(237) xoï-ibíròk nàŋ kùrā nà
IMP.2 > 1-throw-DAT 1SG.ABS ball.ABS that.F
‘Throw me the ball!’  BI:48:12

Some examples of causatives are given in Table 5-13. The causative can be used on both stative (e.g. /fir/, ‘be fat’) and on active verbs. This is a very productive process in Lopit as well as other Eastern Nilotic languages (Dimmendaal, 1983c, p. 294).

<table>
<thead>
<tr>
<th>verb type</th>
<th>verb root</th>
<th>English</th>
<th>new verb stem</th>
<th>infinitive</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>stative</td>
<td>fir</td>
<td>‘be.fat’</td>
<td>-iti-fir</td>
<td>x-iti-firon</td>
<td>‘fatten’</td>
</tr>
<tr>
<td></td>
<td>do</td>
<td>‘be.red’</td>
<td>-iti-dɔ</td>
<td>x-iti-doron</td>
<td>‘redden’</td>
</tr>
<tr>
<td></td>
<td>rit</td>
<td>‘be.missing’</td>
<td>-iti-rit</td>
<td>x-iti-rit</td>
<td>‘lose (something)’</td>
</tr>
<tr>
<td></td>
<td>mur</td>
<td>‘be.burnt’</td>
<td>-iti-mur</td>
<td>x-iti-mur</td>
<td>‘burn’</td>
</tr>
<tr>
<td>active</td>
<td>xol</td>
<td>‘buy’</td>
<td>-iti-xol</td>
<td>x-iti-xol</td>
<td>‘sell’</td>
</tr>
<tr>
<td></td>
<td>rwat</td>
<td>‘leave’</td>
<td>-iti-rwat</td>
<td>x-iti-rwat</td>
<td>‘make leave’</td>
</tr>
<tr>
<td></td>
<td>ijːen</td>
<td>‘know’</td>
<td>-iti-ijːen</td>
<td>x-iti-ijːen</td>
<td>‘teach’</td>
</tr>
<tr>
<td></td>
<td>niŋo</td>
<td>‘hear’</td>
<td>-iti-niŋ</td>
<td>x-iti-niŋ</td>
<td>‘listen’</td>
</tr>
</tbody>
</table>
5.4.3 The suffix -(V)k/, dative applicative marker

The suffix -(V)k/ is used to mark an event directed towards a person or a location. There are two main situations in which this suffix is used. The first is when it is used to express the applicative, benefactive or malefactive. These are usually valence changing operations, which are discussed in more detail in section 7.4. In the second situation, the suffix -(V)k/ is used when there is no change in valency. These situations usually involve some kind of location (i.e. semantic GOAL).

I describe the suffix -(V)k/ as the dative suffix and glossed it as DAT. This is in line with studies of other Eastern Nilotic languages (Barasa, 2015; Dimmendaal, 2009; D. L. Payne, 2015b). As discussed in section 5.4.1, this suffix (or similar versions of it) is widely used in Eastern Nilotic languages.

The vowel in the suffix is usually determined by the sub-class of the verb (see section 5.2.2). For sub-class (a) verbs (i.e. those with (i)CVC roots), the vowel is usually the same as that used for the imperfective suffix -/a/ or /-o/. It is possible that the choice between /-a/ and /-o/ relates to the ATR quality of the vowel in the stem. That is, (i)CVC roots with [+ATR] vowels prefer /-o/ and (i)CVC roots with [-ATR] prefer /-a/ (see section 6.4.2.1). For subclass (b) verbs (i.e. CVCV roots), the suffix is just /-k/ as there is already a final vowel in the verb root.

I will briefly present some examples of the first area of use of the dative suffix and refer the reader to section 7.4.1 for further discussion. The suffix -(V)k/ is often used in valence-increasing constructions with a verb having three arguments. In the following examples, (238) to (242), I present examples of verbs from Class II(a), Class I(a) and Class I(b). In (238), the Class II(a) verb /ibir/, ‘throw’ has two arguments. In (239), the dative licences the promotion of the NP /naŋ/ to the core argument of object.

(238) e-ìbir-ú ínɛ kùrà dɛ nàŋ
3-throw-VEN 3SG.NOM ball.ABS to 1SG.ABS
‘He throws the ball to me.’   EI:09:58

(239) e-ìbir-Ók ínɛ nàŋ kùrà
3-throw-DAT 3SG.NOM 1SG.ABS ball.ABS
‘He throws me the ball.’   EI:10:16

The suffix -(V)k/ is also used in benefactive constructions. The following two examples show the Class II(a) verb /dím/, ‘build’. The benefactive construction is shown in (241).
Another example is given with the Class I(b) verb /ɔ́rmɔ́/ 'plough' in (242).

(242) ɔ́rɔ́mɔ́-k ịnɛ́ ịnxídɔ́n énà
3-plough-DAT 3SG.NOM Lohidong.ABS field.ABS
'He ploughs Lohidong the field.' BR:33:50

In the second use, this suffix is used when there is no change in valency. On these occasions, the suffix is only licenced on the verb with a linked location. It appears as if the formation of the dative is a lexical process rather than purely a syntactic one. That is, if a particular kind of verb is used with a goal, destination or location, then it may require the dative suffix, even when there are only two core arguments. In (244), the suffix /-k/ is added to the Class II(a) verb /ịnɔ́f/, 'hide (something)', when the adjunct [dè ọ̀mè́], 'in the mountains', is expressed.

(244) a-ịnɔ́f-àk nà ọ́xịtè́ ìwà:
1SG-hide.N-DAT 1SG.NOM cow.ABS in mountains.ABS
'I hid the cow in the mountains.' BC:13:40

Similarly, if the speaker is referring to a previously mentioned location, the suffix /-ak/ is used on the verb. In this case, there is no explicit oblique argument. However, it is expressed by the adverb /da/.

(245) a-ịnɔ́f-ak nà ọ́xịtè́ dà
1SG-hide.PFV-DAT 1SG.NOM cow.ABS there
'I hid the cow there.' DY:27:24

As shown in the following example, the suffix /-ak/ cannot be used on the verb /aịnɔ́fàk/ unless there is also reference to a location (“you have to say where you put it” BC:13:40).
This is also the case with the verb /ifit/, ‘tie’. If the suffix /-ak/ is used, then the utterance will have to “have something that the animal or person is being tied to”, as one consultant noted (BC:08:06). Thus, in (248), the suffix /-ak/ is used when the prepositional phrase [dè jàni], ‘to the tree’, is in the utterance.

Thus, some verbs marked for dative require a preposition (e.g. /iŋof/, /ifit/, /kaf/) and some do not (/idim/, /ibir/). This behaviour appears to be related to the semantics of the verb. As mentioned above, when the preposition is used with the dative, there is a goal, destination or location involved. However, it appears that it is the nature of the method of reaching the goal that determines whether a prefix is required. If we examine examples (243) to (249), we can see the verb implies motion ‘into’ or ‘onto’ some location. That is, /iŋof/, ‘hide’ with the dative requires that the object (‘cow’) is hidden ‘in’ the mountains and /kaf/, ‘lift’, ‘load’, with the dative requires that the object is lifted ‘onto’ the truck.

These verbs can be contrasted with /idim/, /ibir/ and /rɔmɔ/ in (238) to (242), which do not have a preposition with the dative. In the case of /ibir/, ‘throw’, in (239), the ball is not thrown ‘into’ or ‘onto’ the speaker. With /idim/ in (241) and /rɔmɔ/ in (242), the objects (‘house’ and ‘field’ respectively) do not undergo any movement.

A further contrast is provided between the verb /kaf/, ‘load’, ‘lift’, in (249) and the verb /ifwot/, ‘load’, ‘fill’ in (250). The verb /ifwot/ describes the activity of filling the truck,
rather than lifting the sorghum. The verb /kaf/ describes the activity of lifting the sorghum onto the truck.

The use of the dative in situations which could be described as ‘not applicative’ (i.e. non-valence changing) has also been observed in other Eastern Nilotic languages. Dimmendaal discusses the use of prepositions with the dative in Turkana and states that “Dative formation is not a freely generated syntactic phenomenon, but a lexical process” (2009, p. 6). However, the use of the dative with prepositions in Turkana appears to be different to Lopit. In Turkana, a preposition is used with the dative when new information is presented; that is, its use is related to information packaging.

5.4.4 The suffixes /-ri/ and /-ije/, instrumental applicative markers

The suffix /-ri/ is used to express the semantic role of instrument on the verb.26 As shown in the next two examples, unlike English, no preposition (such as ‘with’) is required. The suffixes involve changes in valency, which are discussed in section 7.4.1.

(250) e-ifwóti-àk xáromònì tòròmîlà ñàmà
   3-load-DAT farmer.NOM vehicle.ACT sorghum.ACT
   ‘The farmer loaded the truck with sorghum.’ BB:40:30

The suffix /-ije/ is also used to make the itive. This is discussed in section 5.4.5.1.

(251) à-màt-à-ri nàŋ xífjòŋ fédé ñíːá
   1SG-drink-IPFV-INS 1SG.NOM water.ACT gourd.ACT this.ACT
   ‘I drink water with this gourd’. AP:48:30

(252) kwàŋ nàití á-ńejtá-ri nàŋ
   body.ACT my.ACT 1SG-run-INS 1SG.NOM
   ‘My body…I run with it.’ CT:07:32

The suffix /-ije/ is also used to mark the instrumental applicative. Both these suffixes are common in Eastern Nilotic (see 5.4.1). The suffix /-ije/ appears to have undergone some semantic extension and can also have a resultative interpretation as well as an instrumental one. As described in the following utterance, the car was repaired and, as a result, the subject went to work with the car.

(253) a-ńtí-igém nàŋ tòròmîlà nàití x-á-wú-ije à ágèm
   1SG-CAUS-work 1SG.NOM car my SEQ-1SG-go-INS to work
   ‘I had my car fixed and (thus can) go to work (with it).’ AC:25:07

---

26 The suffix /-ri/ is also used to make the itive. This is discussed in section 5.4.5.1
In (254), the cow dies as a result of drinking the water.

(254) è-mátı ńí-će ńí-fó-ńí ńí-xó-jéì-ńí
drink cow.NOM water SEQ-3-die.PFV-INS
‘The cow drank the water and died (from drinking the water)’. AJ:51:09

The next example is sometimes used as a request by a dying person and can be translated as ‘Kill me a goat for me to die with’ or ‘Before I die, kill me a goat’.

(255) ńá-ńi-xó-ńí xó-ńí-lá-bó x-á-jéì-ńí ńátı
hit-DAT goat.ABS one.M SEQ-1SG-die-INS 1SG.NOM
‘Kill me a goat and then I can die.’ AJ:54:53

The suffix /-ije/ can also have a habitual meaning, somewhat like the extended meaning associated with the ventive and itive, as discussed in section 5.4.5 below.

(256) ńá-fá ńá ńí-xó-ńí-xó-ńí ńí-xó-ńí ńí-tórit
during 1SG.NOM 1SG.NOM SBO-1SG-live-INS 1SG.NOM in Torit
1SG-eat.N 1SG.NOM sorghum.ABS every day
‘When I was (living) in Torit  (During the time I was in Torit )
‘ I ate sorghum every day.’ BL:32:10

5.4.5 Motion towards and away (ventive and itive)

5.4.5.1 Standard ventive and itive

Verbal suffixes are used to indicate motion towards and away from the speaker. There are two sets of allomorphs which are paired. The suffixes /-u/ or /-(i,u)ni/ are used to indicate that the motion is towards the speaker. The suffixes /-ei/ or /-ri/ are used for motion away from the person. The suffix /-u/ is paired with the suffix /-ei/ and /-(i)ni/ is paired with /-ri/. I use the term ‘ventive, VEN’ to refer to ‘motion towards the speaker’ as this is common in studies of Nilotic languages. Other terms used include cislocative, centripetal and venitive. I use the term ‘itive, IT’ to refer to ‘motion away from the speaker’ and other terms for this are translocative, centrifugal and andative. These directionals can also have a range of meanings which is much broader that motion towards and motion away. These extended meanings will be discussed below.

Some examples of the prototypical ventive and itive are given in the following examples. The pair comprising /-u/ and /-ei/ are illustrated with the verb /ideŋ/, ‘kick’. The suffix /-u/ is used to indicate that the motion is towards the speaker (257). The suffix /-ei/ is used
for motion away from the speaker (258) and for motion from one person to another where neither are the speakers (259).

(257) e-idéŋ-ú jón kùrá àdèxó nàŋ
   3-kick-VEN John.NOM ball.ABS towards 1SG.ABS
   'John kicks the ball to me.' AY:47:03

(258) a-idéŋ-eí nàŋ kùrá àdèxó jón
   1SG-kick-IT 1SG.NOM ball.ABS towards John.ABS
   I kick the ball to John.' AY: 47:17

(259) e-idéŋ-eí jón kùrá àdèxó viktòr
   3-kick-IT John ball.ABS towards Victor.ABS
   'John kicks the ball to Victor.’ AY:47:24

The other set of suffixes is illustrated with the verb /met/, ‘move in large numbers’, in the following two examples.

(260) te krismas e-met-ini xijò tè = toùn à = xàŋ
   at Christmas 3PL-go.in.numbers-VEN people from = town to = village.ABS
   ‘At Christmas, people gather from the town to the village.’ BE:31:54

(261) e-met-ari xijò à = xàŋ
   3PL-go.in.numbers-IT people to = village.ABS
   ‘People are going (in large numbers) to the village.’ BE:35:56

The two different suffix pairs appear to be commonly used. A list of verbs with the two types of ventive and itive suffixes is given in Table 5-14. The choice of the ventive/itive suffix pair does not appear to be related to the class of the verb, to the structure of the verb root (i.e. sub-class (a) or (b)) or to the semantics of the verb. Phonological conditioning appears to play a role in the choice of the particular form of the suffix (e.g. /-ini/, /-oni/, or /-uni/). With some verbs, e.g. /bala/, ‘harvest’ and /kwada/, ‘take (with tongs)’, both suffix pairs have been observed (see the examples in grey shading in Table 5-14). As is discussed in the following sections, these different suffixes can give different functions.

It should be noted that I have observed some variation in the use of the itive suffixes. The /-ei/ itive suffix is sometimes expressed as /-oi/. This is illustrated with the verb /dilo/, ‘sink’, ‘swallow’, in (262) and (263).

(262) a-ití-díl-oi nàŋ tògòlì
   1SG-CAUS-sink-IT 1SG.NOM boat.ABS
   ‘I sank the boat.’ DP:10:23
It is not unusual for the diphthong /ei/ to be expressed as /oi/, even when there is no mid-vowel assimilation. This could well be dialectal variation (or even village-to-village variation since the speakers in (262) and (263) come from different Dorik villages).

Other Eastern Nilotic languages also have a range of ventive and itive suffixes. A list of the ventive and itive marking for some EN languages is given in Table 5-15. Based on Payne’s study of the itive (or “AWAY”) in Maa (2013), the variation in the different forms appears to be related to phonology and dialect. It is worth noting that the authors listed in Table 5-15 do not indicate whether there is any pairing of the suffixes as is shown for Lopit in Table 5-14. It could be that Lopit is the only language to have distinct pairs of ventive and itive suffixes. This is an area for further work.

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27 See section 2.4.2 on mid-vowel assimilation
### Table 5-15: Ventive and itive marking in Eastern Nilotic languages

<table>
<thead>
<tr>
<th></th>
<th>ventive</th>
<th>itive</th>
<th>reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lopit</td>
<td>-u, -(i,o,u)ni</td>
<td>-(e,o)i, -(a,o)ri</td>
<td></td>
</tr>
<tr>
<td>Otuho</td>
<td>-u, -u</td>
<td>-ru, -ru- -ro</td>
<td>(Muratori, 1938, p. 240)</td>
</tr>
<tr>
<td>Maa</td>
<td>-u(n)</td>
<td>-a, -ay(a), -a(r)</td>
<td>(D. L. Payne &amp; Otero, 2016, p. 10)</td>
</tr>
<tr>
<td>Ateso</td>
<td>-u(n), -u(n)</td>
<td>-Vr(i)</td>
<td>(Barasa, 2017, p. 160)</td>
</tr>
<tr>
<td>Turkana</td>
<td>-un, -un, -u, -o, -or, -ar, -o, -a</td>
<td></td>
<td>(Dimmendaal, 1983b, pp. 109–111)</td>
</tr>
<tr>
<td>Bari</td>
<td>-un</td>
<td>-rV</td>
<td>(Spagnolo, 1933, p. 143)</td>
</tr>
</tbody>
</table>

It is worth noting that some EN languages have both /-u/ and /-ʊ/ suffixes for the ventive (e.g. Ateso, Turkana). Only the [+ATR] form has been observed in Lopit, whereas Payne and Otero report that the ventive suffix in Maa has the [-ATR] feature (2016, p. 10).

The verb /ɟíŋ/, ‘go through’, is of interest in that it is always used with the ventive or itive suffix. It can be translated as ‘leave’ and ‘enter’ respectively.

(264) á-ɟíŋ-ef náŋ à = báli
1SG-go.through-IT 1SG.NOM to = outside
‘I go outside.’ CK: 35:58

(265) á-ɟíŋ-ú náŋ à = xàŋi
1SG-go.through-VEN 1SG.NOM to = house
‘I come into the house.’ CK: 35:58

Something similar has been observed in Maa by Payne for the verbs giroo, ‘pass by something’ (AWAY) and giru, ‘pass by, overtake’ (TOWARD). There is no verb form simply with *gir (2013, p. 280).

#### 5.4.5.2 Associated motion

Sometimes, the ventive and itive are used to indicate movement with a verb which does not normally encode movement. For example, the verb /ram/, ‘play’, is used with the progressive suffix /-ita/ in example (266) and there is no specific indication that the brother and sister were moving.

(266) é-rám-ità fràsì xɔ = xànasì
3-play-PROG brother.NOM with = sister.ABS
‘The brother and sister are playing’ DE:24:19

However, when the itive suffix is used, in (267), it indicates that the child went (away from the speaker) to go and play with friends.
Another example is given in (268) with the verb /wɔɟɔ/, ‘sing’. Singing is an activity which does not necessarily involve movement. When used with the itive, the verb now indicates that the person moved whilst singing.

(268) ɛ́-ŋà-wɔ́-ɾì à = kɔl
3-PFV-sing-IT to = street.ABS
‘She went away singing onto the street’. EH:22:24

This use of the ventive and itive to provide a sense of motion to the state or activity described by the verb has been called ‘associated motion’. This term was first used in describing Australian languages (Koch, 1984). It has also be called ‘alloying’ (Dimmendaal, 2015). Associated motion occurs in a number of African languages, particularly Nilo-Saharan languages, (Belkadi, 2015; Mietzner, 2012; D. L. Payne & Otero, 2016).

When the ventive is used with an activity verb, it often indicates that the subject comes back (to the point of origin, e.g. one’s home) after the activity is carried out. This is illustrated with the comparison of examples (269) and (270). In (269), we know that he raided (i.e. stole) the cattle, but we “don’t know where he put them” (CA:43:30). In (270), we know that the “he raided the cattle and brought them here” (CA:43:37). Thus, in (269), there is motion involved in addition to the activity encoded by the verb root.

(269) ò-mùk ñé xísóŋ xù-ná àkàrà
3-raid.N 3SG.NOM cattle.ABS PL-of.F Toposa
‘He raided the Toposa’s cattle.’ CA:43:30

(270) ò-mùx-ɔnì ñé xísóŋ xù-ná àkàrà
1PL-raid.N-VEN 3SG.NOM cattle PL-of.F Toposa
‘He raided the Toposa’s cattle.’ CA:31:47

This use of the ventive and itive to convey associated motion occurs in other Eastern Nilotic languages (Dimmendaal, 2015, p. 10). An example from Maa is shown in (271).

(271) Maa a-te-dia-ayie
1SG-PRF-curse-IT
‘I cursed him as he (or I) went off’. Tucker and Mpaayei (1955, p. 127)
Associated motion constructions can also occur with stative verbs in Lopit. In the following example, the verb is /iږr/, ‘be angry’. With the use of the ventive suffix, there is motion associated with the subject’s state of being angry.

(272) e-iږr-mì  àdàxó = iږxoì
3-be.angry-VEN towards = 1PL.ABS
‘S/he’s coming to us angrily.’ CA:04:12

Similarly, with the use of the itive with the verb /muno/, ‘be happy’, we know that there is movement away from the speaker.

(273) è-ŋà-mùnò-rì
3-PFV-be.happy-IT
‘He/she went happily (S/he was happy when s/he went).’ CA26:05

Associated motion with stative verbs has been observed in other languages. Payne and Otero discuss the use of the ventive and itive on stative verbs in both Komo and Maa (2016). The following example in Maa is somewhat similar to example (272) above.

(274) Maa k = è-ŋd-ó
CN2-3-proud-VEN CN = discourse connective
‘He will be proud when coming’ (D. L. Payne & Otero, 2016, p. 13)

5.4.5.3 Further extensions of meaning

There are further extensions of meaning using the ventive and itive. When the itive suffix /-ri/ is used with the verb /itolo/, ‘sit’, the translation suggests a habitual meaning, (‘usually sits’).

(275) xɔ̀ɟ xìkudó? x-ò-w:ú àdá à = meì
and.then squirrel.NOM SEQ-3-go there to = place
nìa l-e-itolo-jö-rì xot:òŋì
that.F SBO-3-sit-E-IT mother

‘And then the squirrel went to the place where his mother usually sits.’ CY:02:39

Another example occurs with the itive suffix on the verb /maŋa/, ‘live’, ‘reside’. In relation to the following two examples, the consultant said that [lémáŋá] means ‘was living’ and contrasted with [lémáŋa], ‘lived’. Although it might seem like a continuative meaning, the consultant said that other possibilities which are sometimes used for continuative meanings, such as /l-ɛ-maŋa-reta/, ‘SBO-3-live-CONT’ or /l-ɛ-ma-maŋa/], ‘SBO-3-REDUP-live’, were not acceptable in this situation.
The use of directionals to give meanings extending beyond associated motion has been reported for other Eastern Nilotic languages. For Maa, Payne has identified directional and associated motion examples similar to those given in section 5.4.5.2, but also identified three further meanings (2013, p. 274). These are:

- ‘multiplicity of action’ where an action is repeated over time or on a particular occasion
- ‘multiplicity of situation’ where a situation is distributed across multiple participants
- ‘continuous’ where there is one action or situation sustained across time

Thus, example (275) could be regarded as ‘multiplicity of action’ or ‘continuous’ and example (277) could be regarded as ‘continuous’. These can be considered to be examples of the \( \text{SPACE} = \text{TIME} \) metaphor, whereby movement in space can be a metaphor for movement in time (Lakoff, 1993; Lakoff & Johnson, 1980). This broad range of meanings of the ventive and itive is widespread across the wider group of Nilotic languages. This has prompted Mietzner to say that Nilotic languages like to “play with the deictic morphemes” and they “have extended the use of directional morphemes beyond their core function” (2012, p. 174).

There are even further possibilities for the extension of meaning of directionals in Lopit. The ventive and itive may also have the properties of expressing the level of completeness of an activity and/or whether it has been recently completed or not. These properties appear to be encoded by the choice of the ventive or the itive and the selection of the different ventive suffixes. These constructions all involve the perfective. It appears that it is the combination of the perfective and the ventive/itive which enables these kinds of meanings. Consider the following three utterances.

(276) nàfá l-è-máñá íŋě dè = jùbà 3-wó ífá íŋě à = sòkòl
when SBO-3-live.N 3SG.NOM at = Juba 3-go PST 3SG.NOM to = school
‘When he lived in Juba, he went to school.’ AG:11:45

(277) nàfá l-è-máñá-rí íŋě dè = jùbà 3-wó lìfá íŋě à = sòkòl
when SBO-3-live-IT 3SG.NOM at = Juba 3-go PST 3SG.NOM to = school
‘When he was living in Juba, he went to school.’ AG:11:55

The use of directionals to give meanings extending beyond associated motion has been reported for other Eastern Nilotic languages. For Maa, Payne has identified directional and associated motion examples similar to those given in section 5.4.5.2, but also identified three further meanings (2013, p. 274). These are:

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(278) á-ŋá-bál-ù náŋ mànà
1SG-PFV-harvest-VEN 1SG.NOM field.ABS
‘I harvested (a bit of) the field (maybe yesterday).’ DO-13:04:57

(279) á-ŋá-bál-iní náŋ mànà
1SG-PFV-harvest-VEN 1SG.NOM field.ABS
‘I harvested (quite a bit of) the field (a few weeks ago).’ DO-13:04:57
It appears that there is a gradation in going from (278) through to (280) and this indicates that progressively more of the field was harvested and/or the harvested occurred progressively further in the past. It is interesting to note that the different ventive suffixes (/-u/ and /-ei/) and the itive suffix /-ri/ appear to have a specific lexicalised interpretation.

In Lopit, the ventive and itive are also used to give inchoative meanings. An example is shown in (281). This is discussed in detail in section 6.4.4.

The use of the ventive can sometimes result in a significant meaning shift in the verb itself. With the verb /iːɛn/, ‘know’, the addition of the ventive suffix can give a verb which can be translated as ‘recall’ or ‘remember’, as shown in (282). This could be regarded as associated motion if one described ‘remember’ as ‘I knew something and it came back to me’. Something similar is observed in Turkana, where the verb tam, ‘think’ becomes ‘remember’ with the ventive suffix (Dimmendaal, 1983b, p. 110).
Chapter 6  Aspect and Modality

6.1  Introduction

The aspect and mode systems in Lopit are reasonably complex and, for this reason, a separate chapter is allocated to this topic. This chapter contains a brief review of tense and aspect in section 6.2, with the aim of providing a framework for the subsequent discussion.

Lopit does not have a grammatical tense. Temporal reference is provided by adverbs, prepositional phrases, noun phrases and by the discourse context. This is discussed in section 6.3.

Lopit can be described as an aspect-oriented language, in common with many Nilo-Saharan languages (Stassen, 1997, p. 463). There are several different ways of marking aspect. Some of these are determined by the root structure. Verbs with the root structure (i)CVC are marked differently to those verbs with the structure (i)CVCV (i.e sub-classes (a) and (b)). The marking of the perfective aspect also depends on whether the verb is used in a derived form. Aspeclual marking is discussed in section 6.4.2.

Lopit has a three-way contrast between the neutral, imperfective and perfective. There are also sub-categories of the imperfective which I call the continuative, habitual and repetitive. These aspectual contrasts are discussed in section 6.4.3.

Lopit has a variety of inchoative constructions and these are discussed in this chapter as they involve a change of state, i.e. they are concerned with “the internal temporal constituency of a situation” (Comrie, 1976, p. 3). There are four main ways of marking the inchoative and these are related to verb class, the type of stative verbs and the aspectual viewpoint of the verb. These are discussed in section 6.4.4.

Lopit has a range of modal distinctions, including the irrealis, the potential, the conditional and the obligative. These are presented in section 6.5.

Imperatives show person agreement with the subject (i.e. who receives the command) and (if a discourse participant) with the object of the required action of the command. There is also a hortative or softened command or request. These topics are discussed in 6.6.

6.2  A brief review of tense and aspect

Verbs are used to describe situations which can be changing over time ('events') or situations which are relatively unchanging ('states'). Languages have ways of locating these situations
in time, i.e. providing a temporal reference. This can be provided by temporal adverbs (before, later), noun phrases (the next day, last week) or prepositional phrases (in the morning). It can also be provided by grammatical marking such as verbal affixes and the use of auxiliaries. When temporal reference is grammaticalised in a language, we say that it has tense. I will argue that Lopit does not have tense (see the following section, 6.3) and hence this introduction will concentrate on aspect.

Aspect describes “the shape, distribution and internal organisation in the event [or situation] in time” (Kroeger, 2005, p. 152). Unlike tense (which is used only used for grammaticalized distinctions of time reference), the term ‘aspect’ is used to cover both the aspectual nature of the lexical predicate and the grammaticalized distinctions relating to these internal organisations of events (Comrie, 1976, pp. 6–7). Smith expresses this point as “aspect is a semantic domain which is expressed in linguistic categories” (1997, p. 5). There are many different ways of analysing aspect. This review will consider aspect through the interrelation of two main approaches, which I refer to as ‘situation aspect’ and ‘viewpoint aspect’.

Situation aspect presents “a situation as belonging to a certain category of event or state” (C. Smith, 1997, p. 4) and is concerned with things like ‘state/event distinctions’, ‘time schemata’ and ‘situation types’. This approach is also known as ‘lexical aspect’. Stassen states that this kind of aspect is concerned with “intrinsic types of temporal characteristics of situations formerly classified as ‘Aktionsart’.” (2002, p. 203).

With situation aspect, each verb describing an event or situation has aspectual qualities which are inherent in the semantics of the verb. These qualities can, in part, be described using a number of contrasting lexical aspectual features of verbs. The first is ‘dynamicity’ which distinguishes between states, which are static or unchanging, and events, which are dynamic or changing. The second is ‘telicity’ which describes a situation’s degree of boundedness. A telic situation is one which has natural boundary or endpoint. A situation is atelic if it has no such boundaries and there is no way of distinguishing what goes on inside the event (i.e. it has a homogeneous internal structure). The third feature is ‘durativity’ which is related to the temporal shape of the situation. A durative situation is one which takes time to occur and has multiple, successive points in time. A non-durative situation is one which is momentaneous or instantaneous and thus only relates to a single point in time.

These lexical features can be used to distinguish different classes of predicates. Originally, Dowty developed a methodology for verb classification derived from Vendler’s four classes of predicates (1979, pp. 51–71). A fifth category, semelfactive, was added by Smith (1997). These are shown in Table 6-1.
Table 6-1: Five categories of predicates (Dowty, 1979, p. 54; C. Smith, 1997, p. 30)

<table>
<thead>
<tr>
<th></th>
<th>states</th>
<th>activities</th>
<th>accomplishments</th>
<th>semelfactives</th>
<th>achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>dynamic</strong></td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>telic</strong></td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td><strong>durative</strong></td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td>exist, know, walk, run, paint a picture, knock (on a door), sneeze</td>
<td>recognize, find, lose, die</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>examples</strong></td>
<td>have, love push a cart make a chair, door,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second approach is ‘viewpoint aspect’ where events are presented “through grammaticalised viewpoints such as the imperfective and perfective” (C. Smith, 1997, p. 3). The viewpoint is signalled by grammatical morphemes, usually marked on the verb or in the verb phrase. This approach is sometimes called ‘morphological aspect’. According to Smith, the aspevtual viewpoint is the focus or ‘visibility’ of a situation (1997, p. 62). The visible information about an event is that which is asserted, i.e. “available to the receiver of a sentence for truth-conditional issues and entailments” (1997, p. 62). According to Smith, there are three main viewpoint types: perfective, imperfective, and neutral.

**Perfective** viewpoints focus a situation in its entirety, including both initial and final points. **Imperfective** viewpoints focus part of a situation, including neither initial nor final points. **Neutral** viewpoints are flexible, including the initial point of a situation and at least one internal stage (where applicable) (1997, p. 6).

In Comrie’s definition, “aspects are different ways of viewing the internal temporal constituency of a situation” (1976, p. 3). Comrie examines morphological aspect from a number of perspectives. He firstly examines the perfective/imperfective contrast. He describes perfective as indicating a view of the situation as a whole, without considering any separate phases that make up the situation. On the other hand, imperfective is involved with the internal temporal structure or organisation of the situation. He presents a typical breakdown of the imperfective into habitual and continuous and the continuous into progressive and non-progressive, although these categories are not necessarily present in a given language (1976, pp. 24–25).

Habituality refers to a situation which is characteristic of an extended period of time. Comrie distinguishes habitual from iterative on the basis that some event may be repeated (i.e. iterated) a number of times (e.g. hammering nails to make a table) but these events become part of a single situation (*he hammered the nails to make the table*) which can be referred to by the perfective. Continuousness can be defined as “imperfectivity that is not occasioned by habituality”. Progressiveness can be defined as “the combination of progressive meaning and non-stative meaning” (1976, pp. 24–25).
Johanson also discusses neutral aspect and characterises it such that “the whole event, including its course and limits is envisaged in an integral way without any specific point being highlighted (2001, p. 11)”. The kind of aspect is similar to the habitual-generic aspect described by Dahl (1985, p. 67).

In summary, there are a number ways of looking at aspect. Although most writers seem to distinguish similar concepts such as stative and dynamic, perfective, imperfective and habitual and continuous, they have different ways of categorising them. In this study, I will mostly draw on the work of Comrie and of Smith. Smith’s work is of particular relevance since I have postulated a three-way aspectual contrast in Lopit, which matches her perfective, imperfective and neutral viewpoints (1997, p. 93).

6.3 Temporal reference

Tense is not grammaticalized in Lopit. Time reference is indicated through temporal adverbs, prepositional phrases or discourse context. There are three special adverbs (/ifa/, remote past, /ara/, immediate past and /iso/, future) that are used, and they could, possibly, be interpreted as tense markers. However, they are not attached to the verb, they can appear in different positions in the clause and they are optional. This is demonstrated in the next two examples, where the adverb, /iso/, future, can be placed before or after the subject [náŋ], ‘I’. The adverb is usually placed between the verb and the subject (i.e. as in (283)), although it can also be placed after the subject (as in (284)).

(283) á-wù ́ isó ́ náŋ ́ móité? ́ à = sùk  
1SG-go ́ FUT 1SG.NOM morning to = market.ABS  
‘I will go to the market tomorrow.’ BN:01:30

(284) á-wù ́ náŋ ́ isó ́ móité? ́ à = sùk  
1SG-go ́ 1SG.NOM FUT morning to = market.ABS  
‘I will go to the market tomorrow.’ BN:02:17

Without any specific time reference, the simple verb can be interpreted as past or present. When asked to say “she bakes the bread” and “she baked the bread,” the consultant gave the example in (285) and said that there is no difference. The baking described in the utterance could be taking place in the present or it could have taken place earlier.

(285) ́ó-púrá ́ ñé ́ ímóné  
3-bake 3SG.NOM bread.ABS  
‘She bakes/baked bread.’ AF:01:48
Similarly, in relation to the following example, the consultant commented “for the simple past and simple present, they are the same” (AF:01:19:41).

(286)  
\begin{align*} 
  &a-\text{nîm}-u \quad nànj \quad bùk \\
  &1SG\text{-choose-VEN} \quad 1SG.NOM \quad \text{book.ABS} \\
  \end{align*}

‘I choose/chose a book.’ AF01:13:03

If one wants to indicate time reference, one of the specific adverbs can be used, such as [àrà], which generally refers to something that happened earlier that day. This word is somewhat similar to the word [árà], ‘it is’ from the verb /ra/, ‘be’, but it never inflects and has a different tone. When [àrà] is shortened, it is realised as [à]. When [árà] is shortened, it is realised as [á] (EI:01:59). The word [àrà] is glossed as ‘earlier’ or as the immediate past (IMM.PST).

(287)  
\begin{align*} 
  &a-\text{nîm}-u \quad nànj \quad bùk \quad \text{àrà} \\
  &1SG\text{-choose-VEN} \quad 1SG.NOM \quad \text{book.ABS} \quad \text{earlier} \\
  \end{align*}

‘I chose a book earlier.’ AF:01:19:54

To indicate something further in the past (more than several days) the word /ifa/ is used. This is glossed as the past (PST).

(288)  
\begin{align*} 
  &á-\text{wù} \quad ífá \quad nànj \quad à=sùk \quad tè=ìtábóíté \\
  &1SG\text{-go} \quad PST \quad 1SG.NOM \quad \text{to=}\text{market} \quad \text{on=}\text{Monday} \\
  \end{align*}

‘I went to the market on Monday.’ BN:05:51

Note that, without a specific time reference or discourse context, the utterance can be ambiguous as shown in (289). However, the time reference can also be established with other adverbs or nouns (the equivalent of ‘today’ or ‘yesterday’) as shown in (290) and (291).

(289)  
\begin{align*} 
  &á-\text{wù} \quad nànj \quad à=sùk \quad tè=ìtábóíté \\
  &1SG\text{-go} \quad 1SG.NOM \quad \text{to=}\text{market.ABS} \quad \text{on=}\text{Monday} \\
  \end{align*}

‘I went to the market on (last) Monday.’

‘I am going to the market on (next) Monday.’ BN:06:56

(290)  
\begin{align*} 
  &a-\text{nîm}-u \quad nànj \quad bùk \quad \eta\text{nlè}? \\
  &1SG\text{-choose-VEN} \quad 1SG.NOM \quad \text{book.ABS} \quad \text{yesterday} \\
  \end{align*}

‘I chose a book yesterday.’ AF:01:19:54

(291)  
\begin{align*} 
  &á-\text{wù} \quad nànj \quad à=sùk \quad \text{moítè} \\
  &1SG\text{-go} \quad 1SG.NOM \quad \text{to=}\text{market.ABS} \quad \text{tomorrow} \\
  \end{align*}

‘I’m going to the market tomorrow.’ CR:07:06
In order to test for tense marking further, a situation was established using the statement, ‘You were at home this morning making bread, when Dan arrived’. This allows the question in (292). The answer, given in (293), has no explicit time reference. This utterance could be translated as ‘I was making bread’; ‘I am making bread’; or ‘I will be making bread’. The context provided in (292) allows the interpretation given in (293).

(292) x-i-ígém-á ìjé ñò àrá móité? l-e-íbá dán  
Q-2SG-do.IPFV 2SG.NOM what before morning SBO-3-arrive Dan  
‘What were you doing this morning when Dan arrived?’ AF:00:16:43

(293) á-p癯rá náŋ ímóné  
1SG-bake.IPFV 1SG.NOM bread.ABS  
‘I was making bread.’ AF:00:17:18

Thus, it seems that Lopit speakers can often rely on context to indicate the reference to the temporal situation. Lopit also has temporal demonstratives (see section 4.6.4.2) and temporal relative pronouns (see section 9.5.4 on relative clauses). These provide additional ways of expressing temporal situations.

It is worth noting that earlier linguists, such as Spagnolo (1933) for Bari and Tucker & Mpaayei (1955) for Maa, proposed tense distinctions in Eastern Nilotic languages. Later linguists have argued that these are better described as aspectual distinctions (e.g. for Maa, see König (1993) and Payne (2015a)). Stassen found that Nilo-Saharan languages in general, and Nilotic languages in particular, can be regarded as non-tensed (or aspect) languages. The Eastern Nilotic languages that he studied are Bari, Maa, Ateso and Turkana (1997, p. 466).

6.4 Aspect

6.4.1 Introduction

The verb in Lopit is inflected for a range of aspects. These include neutral, imperfective, perfective, continuative, habitual, and persisitive. The main contrasts in aspect are between the neutral, imperfective and perfective. The form of the aspect marking is related to the structure of the verb root, which is discussed in section 5.2.2, where I distinguish between sub-class (a) with (i)CVC roots and sub-class (b) with (i)CVCV roots. The basic aspect marking patterns for sub-class (a) and (b) for Class I and II verbs are shown in Table 6-2 and these are discussed in more detail in section 6.4.2. Verbs which do not have the (i)CVC or (i)CVCV structure are discussed in section 6.4.2.5. In section 6.4.3, I discuss the various contrasts between the different aspects.
Table 6-2: Basic patterns for aspect marking (tone is only marked for those places where it is determined by aspect marking)

<table>
<thead>
<tr>
<th></th>
<th>Class I</th>
<th>Class II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neutral</strong></td>
<td>I(a) - CVC</td>
<td>I(a) - iCVC</td>
</tr>
<tr>
<td><strong>Imperfective</strong></td>
<td>CVC</td>
<td>CVC-v</td>
</tr>
<tr>
<td><strong>Perfective</strong></td>
<td>(x)i-CVC</td>
<td>(x)i-iCVC</td>
</tr>
<tr>
<td><strong>Perfective with derivational suffix</strong></td>
<td>ŋà-CVC-ak</td>
<td>ŋà-CVCV-k</td>
</tr>
</tbody>
</table>

Generally in aspect-oriented languages, the most common aspectual distinction is the opposition between imperfective and perfective (Bybee & Dahl, 1989, p. 83). This also appears to be the situation in Eastern Nilotic (Stassen, 1997, p. 467). This contrast has also been described as one between “momentary” (perfective) and “continuous” (imperfective) (Tucker & Bryan, 1966, p. 477). As mentioned above, this contrast is observed in Lopit.

However, Lopit appears to differ from other EN languages in that there is a three-way contrast in aspect: i.e. neutral, imperfective and perfective (ignoring sub-categories of the imperfective such as progressive and habitual). This has not been observed for other EN languages. It would be worth investigating, especially in Otuho.

Barasa has identified a perfect aspect in Ateso, but does not provide much information (2017, p. 201). Maa has a distinction between the imperfective and an aspect marked with a tV- prefix and an -a or an -o suffix. This was originally described as past tense by Tucker & Mpaayei (1955, p. 53). König (1993) argues that this is better described as perfective. Payne (2015a) has done further analysis with particular emphasis on narratives and argues that its discourse form "is more similar to that of a perfect" (2015a, p. 49). However, she also states that more study is required.

Lopit shows some similarity with other EN languages in terms of both aspectual distinctions and the marking used. The range of aspectual contrasts and marking in Eastern Nilotic languages is shown is simplified form in Table 6-3.

Table 6-3: Aspect marking in Eastern Nilotic languages

<table>
<thead>
<tr>
<th>aspect</th>
<th>Lopit</th>
<th>Otuo</th>
<th>Maa</th>
<th>Ateso</th>
<th>Turkana</th>
<th>Toposa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>imperfective</strong></td>
<td>-a/o; tone</td>
<td>-a/o</td>
<td>-ø</td>
<td>-i</td>
<td>-i', -e'</td>
<td></td>
</tr>
<tr>
<td><strong>perfective</strong></td>
<td>(x)i; tone: ŋà</td>
<td>l-</td>
<td>tV-R-a/o</td>
<td>-it</td>
<td>-it</td>
<td>-it</td>
</tr>
<tr>
<td><strong>perfect</strong></td>
<td>-</td>
<td>-</td>
<td>tV-R-a/o</td>
<td>a-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>progressive</strong></td>
<td>-ità</td>
<td>-ita</td>
<td>-ita</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>persistive</strong></td>
<td>ìv-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>habitual</strong></td>
<td>-ità; -ø</td>
<td>?</td>
<td>-ø</td>
<td>-een</td>
<td>-een, -aan</td>
<td>-oo, -an</td>
</tr>
</tbody>
</table>
Lopit appears to be the only EN language which has a special perfective marking on verbs with a derivational suffix (as shown in Table 6.2) and discussed in section 6.4.2.6.

6.4.2 How aspect is marked

6.4.2.1 Verb sub-class Ia

This sub-class marks the perfective with the insertion of the prefix /(<x)ɪ-/ before the verb root and after the pronominal prefix. The imperfective generally marked with the suffix /-a/ or /-o/. The neutral aspect is unmarked (i.e. CVC). Examples of the neutral, imperfective and perfective distinction are given in the following three examples with the verb /xɔŋ/, ‘bite’.

(294) ɜ-xɔŋ  mùnù  xìŋɔxù
   3-bite.N  snake.NOM  dog.ABS
   ‘The snake bit/bites the dog.’  AP:32:30

(295) ɜ-xɔŋ-á  xìwaró  xábó
   3-bite-IPFV  leopard.NOM  chief.ABS
   ‘The leopard is biting the chief.’  CA:46:52

(296) ɛ-ɪ-xɔŋ  mùnù  xìtò
   3-PFV-bite  snake.NOM  child.ABS
   ‘The snake bit/has bitten the child.’  BN:11:01

An example of the imperfective with the /-o/ suffix is given in (297).

(297) ɡ-ɔ̃pɔ-ð  náŋ  tɔrɔmfìlè
   1SG-clean-IPFV  1SG.NOM  car.ABS
   ‘I’m cleaning the car.’  BQ:36:30

The imperfective suffix appears to be a choice of either /-a/ or /-o/. It is possible that it relates to the ATR quality of the vowel in the stem. That is, CVC roots with [+ATR] vowels prefer /-o/ and CVC roots with [−ATR] prefer /-a/. This is not yet clear across all the verbs collected so far and further work in this area is required (see also Billington (2017, p. 138). This suffix is the same as the middle voice marker, which is discussed in section 7.4.2. Note that if a CVC root has a [−ATR] vowel and the [+ATR] suffix /-o/ is added, vowel harmony will result in [+ATR] vowels to the left. This is shown with the verb /ŋɔr/, ‘shoot’, in Table 6-4.
The perfective prefix /xi-/ can be realised either with a consonantal onset, as [xi] or [xi], or without, as [i] or [i]. This can be seen in the utterances shown in (297) and (298). The form [xi] or [xi] appears to be only used in careful speech, as produced in (298), while in more natural speech, as in (299), the velar fricative is elided and the prefix is produced as [i] or [i]. The prefix /xi-/ appears to typically carry a low tone, and the tone on the pronominal prefix (e.g. /c-/ for the third person) becomes high, if not already high, when the perfective is formed. This results in the sequence of two prefixes being realised as [eɪ] or [eɪ], with the two adjacent vowel qualities produced as distinct syllable nuclei in slower speech or, in more rapid speech, being realised as a diphthong [eɪ] or [eɪ], with a falling tone. At this stage, the underlying form of the prefix appears to be /xɪ-/ i.e. [-ATR], realised as [+ATR] [xi] or [i] according to vowel harmony. An example with the perfective prefix produced as [-ATR] is given with the verb /xan/ in (296). Examples with the prefix produced as [+ATR] are given with the verb /rije/ in (298) and (299).

(298)  

é-xi-ríjè  íɲɛ  mùnù  
3-PF-v.tread.on  3SG.NOM  snake.ABS
‘He trod on a snake.’  BC:01:14:22

(299)  

é-i-ríjè  náɲ  mùnù  
3-PFV-v.tread.on  1SG.NOM  snake.ABS
‘I trod on a snake.’  BC:36:12

Some more examples are shown in Table 6-4. The finite forms are shown in the third person form. As shown in Table 6-4, verbs with the structure CGVC (e.g. /kwed/) and CCVC (e.g. /lak/) have the same pattern as CVC verbs.

Table 6-4: Third person neutral, imperfective and perfective forms for some Class Ia verbs

<table>
<thead>
<tr>
<th>root</th>
<th>N</th>
<th>IPFV</th>
<th>PFV</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bak</td>
<td>ə-bák</td>
<td>ə-báxá</td>
<td>ə-i-bák</td>
<td>‘hit’, ‘beat’</td>
</tr>
<tr>
<td>kem</td>
<td>ə-kém</td>
<td>ə-kém-a</td>
<td>ə-i-kém</td>
<td>‘try’</td>
</tr>
<tr>
<td>lum</td>
<td>ə-lúm</td>
<td>ə-lúm-o</td>
<td>ə-i-lúm</td>
<td>‘hit’, ‘punch’</td>
</tr>
<tr>
<td>mat</td>
<td>ə-mát</td>
<td>ə-mát-á</td>
<td>ə-i-mat</td>
<td>‘drink’</td>
</tr>
<tr>
<td>nɔr</td>
<td>ə-nɔr</td>
<td>ə-nɔr-o</td>
<td>ə-i-nɔr</td>
<td>‘shoot’, ‘sting’</td>
</tr>
<tr>
<td>nɔt</td>
<td>ə-nɔt</td>
<td>o-nɔt-o</td>
<td>ə-i-nɔt</td>
<td>‘cut’</td>
</tr>
<tr>
<td>pot</td>
<td>ə-pɔt</td>
<td>o-pɔt-o</td>
<td>ə-i-pɔt</td>
<td>‘wash’</td>
</tr>
<tr>
<td>rem</td>
<td>ə-rɛm</td>
<td>ə-rɛm-ɔ</td>
<td>ə-i-rɛm</td>
<td>‘spear, hunt’</td>
</tr>
<tr>
<td>xan</td>
<td>ə-xan</td>
<td>ə-xan-á</td>
<td>ə-i-xan</td>
<td>‘bite’</td>
</tr>
<tr>
<td>kwed</td>
<td>ə-kwɛd</td>
<td>ə-kwɛd-á</td>
<td>ə-i-kwɛd</td>
<td>‘sing’</td>
</tr>
<tr>
<td>lkɛ</td>
<td>ə-lɛk</td>
<td>ə-lɛk-á</td>
<td>ə-i-lɛk</td>
<td>‘untie’</td>
</tr>
</tbody>
</table>
Note that the tone on the third person pronominal prefix sometimes alternates between high and low tone for the neutral and imperfective aspect. This variation is not yet understood and appears to contrast with other Eastern Nilotic languages. Rasmussen reports that, for Maa, the surface forms for the first and second person pronominal markers have high tone and the third person markers have low tone (2002, p. 49). In Ateso, all singular subject pronominal markers have high tone. In Turkana, all singular subject pronominal markers have a low tone (Dimmendaal, 1983b, p. 120).

The patterns for the imperfective and perfective with the middle voice for Sub-class Ia verbs are different and this is discussed in section 7.4.2.

6.4.2.2 Verb sub-class Ib

These verbs have the structure CVCV and mark the perfective with a change in tone pattern whereby the tone on the first vowel of the stem is consistently low, as shown in (300). The tone on the second vowel is independent of the aspect. The neutral form of the verb uses the unmarked form of the verb and is the same as the imperfective. The two aspects are neutralized in this sub-class and the gloss N is used. The interpretation between neutral and imperfective depends on the context and the use of adverbs. This is illustrated in (301) and (302).

(300) neutral imperfective perfective
      C\{.CV  C\{.CV  C\{.CV

The following three utterances are examples of the neutral, imperfective and perfective respectively.

(301) á-řiŋà  nàŋ  kùrà  dè=tìvi
      1SG-watch.N  1SG.NOM  football.ABS  on=TV
      ‘I watch the football on TV.’  BN:17:38

(302) á-řiŋà  nàŋ  kùrà  ūjànà
      1SG-watch.N  1SG.NOM  football.ABS  now
      ‘I’m watching football now.’  BN:18:03

(303) á-řiŋà  nàŋ  kùrà  nà
      1SG-watch.PFV  1SG.NOM  football.ABS  that
      ‘I (have) watched the football.’  BN:18:07

With sub-class Ib verbs, there appear to be changes on the tone of the bound pronominal pronoun. It is generally observed that the tone on the third person pronominal marker changes from high to low with the change from imperfective to the perfective. The tone on
the first and second person marker remains unchanged (i.e. high). Some examples are given in Table 6-5. As stated above, the tone on the second vowel of the verb stem remains unchanged. In most cases, there is low tone on this vowel. As shown in the last two examples in Table 6-5, verbs of the form CCVCV (/tːɔxɔ/) and CVCCV (/xojːa/) have the same marking pattern as CVCV verbs.

Table 6-5: Imperfective and perfective forms for sub-class Ib verbs

<table>
<thead>
<tr>
<th>verb</th>
<th>imperfective</th>
<th>perfective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>wolo</td>
<td>á-wóló</td>
<td>ó-wóló</td>
<td>á-wóló</td>
</tr>
<tr>
<td>daxa</td>
<td>á-dáxa</td>
<td>é-dáxà</td>
<td>á-dáxà</td>
</tr>
<tr>
<td>bala</td>
<td>á-bálá</td>
<td>é-bálá</td>
<td>á-bálá</td>
</tr>
<tr>
<td>riña</td>
<td>á-řiňá</td>
<td>é-řiňá</td>
<td>á-řiňá</td>
</tr>
<tr>
<td>tːoxo</td>
<td>á-tːɔxɔ</td>
<td>ʃ-tːɔxɔ</td>
<td>á-tːɔxɔ</td>
</tr>
<tr>
<td>xojːa</td>
<td>á-xojːa</td>
<td>ʃ-xojːa</td>
<td>á-xojːa</td>
</tr>
</tbody>
</table>

It is worth noting that, while segmental morphemic marking of aspect is widespread in Eastern Nilotic languages (see Table 6-3), the use of tonal changes to mark aspect is also found in other Nilotic languages. Turkana has a form of the perfective (‘perfective 2’) which is marked with tonal changes (Dimmendaal, 1983b, p. 151). A change from high to low tone is used in the Western Nilotic languages of Lango (Noonan, 1992, p. 91) and Labwor (related to Acholi) (Heine & König, 2010, p. 36). The use of tone to mark aspect in EN languages is an interesting topic for further work.

6.4.2.3 Verb sub-class IIa

Sub-class IIa verbs (iCVC) have similar aspect marking to sub-class Ia verbs. The neutral aspect is unmarked (i.e. iCVC). The imperfective is generally marked with the suffix /-a/ or /-o/. The perfective is marked with the insertion of the prefix /(x)ᵢ-/ before the verb root and after the pronominal prefix. The marking of the neutral, imperfective and perfective aspects is shown with the verb /iidim/, ‘build’ in the following three utterances. More examples are given in Table 6-6.

(304) á-rá náŋ xaídímání a-ídím náŋ xâjí
1SG-be 1SG.NOM builder.ABS 1SG.build.N 1SG.NOM houses.ABS
‘I am a builder. I build houses.’ DQ:03:58

(305) a-ídím-à náŋ xâjí ín:à
1SG-build-IPFV 1SG.NOM house.ABS this.F
‘I am building this house.’ DQ:05:43
When a Class I stative verb is made into a transitive verb using the causative prefix /ɪtɪ-/ , it behaves like a Class II verb. The following two utterances contain the Class I verb /fu/ , 'be.wet' (infinitive /fuɟon/). The imperfective has the suffix /-o/ and the perfective has no suffix (the same as the verbs in Table 6-6).

```
(307) e-ɪtɪ-fu-ò    nàŋ    xaf?
    3-CAUS-be.wet-IPFV 1SG.ABS rain.NOM
    ‘The rain is making me wet.’ CA:14:05
```

```
(308) é-ɪtɪ-fù    nàŋ    xaf?
    3-CAUS-be.wet.PFV 1SG.ABS rain.NOM
    ‘The rain (has) made me wet.’ CA:14:05
```

Table 6-6: Examples of the verb sub-class IIa

<table>
<thead>
<tr>
<th>infinitive</th>
<th>root</th>
<th>neutral</th>
<th>imperfective</th>
<th>perfective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xibiro</td>
<td>ibìr</td>
<td>a-ibír</td>
<td>a-ibír-ò</td>
<td>á-ibír</td>
<td>‘throw’, ‘distribute’</td>
</tr>
<tr>
<td>xicaxa</td>
<td>icak</td>
<td>e-icák</td>
<td>e-icák-á</td>
<td>é-icák</td>
<td>‘begin’</td>
</tr>
<tr>
<td>xidma</td>
<td>idìm</td>
<td>e-idìm</td>
<td>e-idìm-á</td>
<td>é-idìm</td>
<td>‘build’, ‘make’</td>
</tr>
<tr>
<td>xidoŋo</td>
<td>idòŋ</td>
<td>e-idòŋ</td>
<td>e-idòŋ-ò</td>
<td>é-idòŋ</td>
<td>‘throw’, ‘hammer’</td>
</tr>
<tr>
<td>xigema</td>
<td>igem</td>
<td>a-igém</td>
<td>a-igém-á</td>
<td>á-igém</td>
<td>‘work’, ‘do’</td>
</tr>
<tr>
<td>xirwata</td>
<td>irwat</td>
<td>e-irwat</td>
<td>e-irwat-á</td>
<td>é-irwat</td>
<td>‘run away’</td>
</tr>
</tbody>
</table>

The pattern for the imperfective and perfective with the middle voice for Sub-class IIa verbs is different and this is discussed in section 7.4.2).

6.4.2.4 Verb sub-class IIb

The sub-class IIb would have a root with the form iCVCV. As yet, I have not identified any examples and cannot say whether this type exists or not. The full range of aspectual distinctions has not yet been tested.

6.4.2.5 Other Class I and II verbs

There are quite few verbs which do not have the root structure (i)CVC or (i)CVCV. I have analysed some verbs with the root structure (i)C(G)V. They show similarities to the patterns for Classes Ia and Iia. I will give some examples for a Class I and a Class II verb and then discuss the patterns.
The Class I verb /ɲa/, 'eat', 'consume' uses the unmarked root for the neutral aspect and the prefix /(x)ɪ-/ for the perfective. This verb cannot be used in the imperfective ("you can't say [ępá] for something that's still going on" BL:29:16). Another verb /daxa/, 'eat', can be used in the imperfective as shown in (641) in section 7.8.1.

The following examples show the Class II verb /ɪba/, 'arrive' with the root structure iCV. The first three examples have the same morphology and can be interpreted as either neutral ((311) and (312)) or imperfective ((311), (312) and (313)). The fourth example, (314), is perfective and uses the perfective prefix /(x)ɪ-/.

(309) ɛ-ɲá ɪŋɛ ɲàmà
3-eat.N 3SG.NOM sorghum.ABS
‘She ate (eats) sorghum.’ CG:49:32

(310) ɛ-ɪ-ɲá ɪŋɛ ɲàmà
3-PFV-eat 3SG.NOM sorghum.ABS
‘She (has) eaten sorghum.’ CG:49:32

The following examples show the Class II verb /ɪba/, 'arrive' with the root structure iCV. The first three examples have the same morphology and can be interpreted as either neutral ((311) and (312)) or imperfective ((311), (312) and (313)). The fourth example, (314), is perfective and uses the perfective prefix /(x)ɪ-/.

(311) a-ɪɓá náŋ ɲàlɛʔ
1SG-arrive 1SG.NOM yesterday
‘I arrived yesterday.’ BY:26:04

(312) a-ɪɓá išó náŋ moité
1SG-arrive FUT 1SG.NOM morning
‘I will arrive tomorrow.’ BY:26:36

(313) ɛ-ɪɓá xàbù dèle fwàrà
1SG-arrive chief.NOM at = meeting place
‘The chief is arriving at the meeting place.’ BY:27:24

(314) ɛ-xi-ɪɓá (ɛɓa) xàbù
3-PFV-arrive chief.NOM
‘The chief (has already) arrived.’ CG:33:33

The aspect marking for some verbs with the root structure (i)C(G)V is shown in Table 6-7. From this limited data, we can say that prefix /(x)ɪ-/ is used to mark the perfective. The neutral, as one might expect, is the unmarked root. The verb /ifi/, 'ask', follows the normal paradigm for sub-class II(a) verbs: i.e. unmarked root for neutral, suffix /-a/ for imperfective and the form [ɛifia] for the perfective. However, if the root ends in /-a/ or /-o/, the

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imperfective follows a pattern such that there is no suffix. This is shown in Table 6-7 for the verbs /ca/, /ŋa/, /iba/, /idja/ and /ifwo/. It is possible that these verbs do underlyingly have the suffix, but it coalesces.

Table 6-7: Examples of the verbs with the root structure (i)C(G)V

<table>
<thead>
<tr>
<th>class</th>
<th>infinitive</th>
<th>root</th>
<th>neutral</th>
<th>imperfective</th>
<th>perfective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ca</td>
<td>ca</td>
<td>ē-cá</td>
<td>ē-cá</td>
<td>ē-ca</td>
<td>‘dance’</td>
</tr>
<tr>
<td></td>
<td>ŋa</td>
<td>ŋa</td>
<td>ē-ŋá</td>
<td>ē-ŋá</td>
<td>ē-ŋá</td>
<td>‘eat’, ‘consume’</td>
</tr>
<tr>
<td></td>
<td>ŋa</td>
<td>ŋa</td>
<td>ē-ŋá</td>
<td>ē-ŋá</td>
<td>ē-ŋa</td>
<td>‘open’, ‘release’</td>
</tr>
<tr>
<td></td>
<td>rjo</td>
<td>rjo</td>
<td>ē-rjó</td>
<td>ē-rjó</td>
<td>ē-rjé</td>
<td>‘tread on’</td>
</tr>
<tr>
<td>II</td>
<td>xiba</td>
<td>iba</td>
<td>e-ibá</td>
<td>e-ibá</td>
<td>ē-i-ibá</td>
<td>‘arrive’</td>
</tr>
<tr>
<td></td>
<td>xif</td>
<td>iif</td>
<td>e-iif</td>
<td>e-iifá</td>
<td>ē-iif</td>
<td>‘ask’</td>
</tr>
<tr>
<td></td>
<td>xidja</td>
<td>idja</td>
<td>e-idjá</td>
<td>e-idjá</td>
<td>ē-idja</td>
<td>‘light’, ‘start’ (fire)</td>
</tr>
<tr>
<td></td>
<td>xifwo</td>
<td>ifwo</td>
<td>e-ifwó</td>
<td>e-ifwó</td>
<td>ē-ifwó</td>
<td>‘cook’</td>
</tr>
</tbody>
</table>

It should be noted that there is an irregularity with the final vowel on the verb /rjo/, ‘tread on’. This vowel changes from [o] to [e] in the perfective.

The overall pattern for aspect marking thus resembles the patterns for Classes Ia and IIa. This suggests that the unmarked pattern for marking aspect is that used by sub-class (a) verbs.

6.4.2.6 Marking the perfective for verbs with derivational suffixes

The aspectual marking so far discussed (in sections 6.4.2.1 to 6.4.2.5) has only been on verbs which have an underived form. There is a different form used when the perfective is applied to derived verbs. I use the term ‘derived verb’ to denote a verb which has undergone a derivational operation. These can include operations which change the valence of a verb root or otherwise modify the basic concept expressed by the root (Bybee, 1985, p. 83; T. E. Payne, 1997, p. 25). In Lopit, this includes operations involving the addition of suffixes to express the ventive, itive and applicative, which do sometimes modify the lexical meaning of the root (see section 5.4). I use the term ‘underived verb’ to describe a verb which may be inflected for aspect or mood but has not undergone any derivational operation (e.g. all the verbs from Table 6-4 to Table 6-7). As will be discussed below, an exception occurs when the derived verbs are formed with a prefix (e.g. causative /tə-/).

For verbs derived using a derivational suffix, the prefix /ŋa-/ is used to mark the perfective, regardless of verb class, as shown in the following example with the benefactive (dative) /-k/ suffix on the Class II verb /idm/. This prefix has a low tone. For class II verbs, this low tone is transferred to the initial close front vowel on the verb stem. It appears that the following tone is always high as shown with [láŋaidímák] in (315).
The same process is used for both Class Ia and Ib verbs. The following example shows the perfective form of the Class Ia verb /ɲiɱ/, ‘choose’, ‘select’, with the ventive suffix /-u/. The low tone on the /ŋa-/ prefix is maintained and, as with Class IIb verbs, the subsequent tone is high. This is illustrated in [áŋːànjimù] in (316).

(316) á-ŋà-ɲím-ù nà̃ xǐtē̃ nà
1SG-PFV-choose-VEN 1SG.NOM cow.ABS that.F
‘I chose that cow.’ DL:03:53

The perfective form of the Class Ib verb /bala/, ‘harvest’, is shown in the following, also with the ventive suffix.

(317) á-ŋà-bál-ù nà̃jango nàmà
1SG-PFV-harvest-VEN 1SG.NOM sorghum.ABS
‘I harvested the sorghum.’ BX:25:16

However, this form of the perfective is not used for those derived verbs which are formed with a prefix. A common example of a prefix used for verb derivation is the causative prefix /ɪtɪ-/ . As shown with the verb /ɪtíjèn/, ‘cause to know’, ‘teach’, in (318), the perfective prefix /(x)ɪ-/ is used.

(318) á-xi-ɪtí-ɪjèn (á-i-ɪtí-ɪjèn) nà̃ iŋliŋ
1SG-PFV-CAUS-know 1SG-PFV-CAUS-know 1SG.NOM English
‘I taught English.’ DP:06:23

When an applicative derivational suffix is used, as with the same verb in (319), the perfective prefix /ŋa-/ is used. Thus, the perfective marking using the prefix /ŋa-/ applies to verbs with derivational suffixes.

(319) á-ŋà-ɪtí-ɪjèn-àk nà̃ wùrè̃ iŋliŋ
1SG-PFV-CAUS-know-DAT 1SG.NOM children.ABS English
‘I taught the children English.’ DP:08:00

This difference between underived and derived verb forms is seen elsewhere in Lopit verbs. The most obvious similarity is with infinitive marking, where there are also different forms of the infinitive depending on whether the verb is derived or not (see section 5.2.4).
Differential marking is also used in forming the inchoative with stative verbs (in this situation, perfective inflection is combined with the ventive – see section 6.4.4.5 below). The differential marking between underived and (suffix) derived verbs thus appears to be a regular process in Lopit. This has not been observed in other EN languages.

6.4.3 Distinguishing the different aspectual contrasts

I propose that, in Lopit, there is a three way contrast between the neutral (N), the imperfective (IPFV) and the perfective (PFV) and, in this section, I describe these contrasts. In addition, in section 6.4.3.4, I will present some additional sub-categories of the imperfective and discuss their meanings and use.

6.4.3.1 The perfective and imperfective contrast

Lopit can be regarded as an aspect-oriented language, in common with many Nilo-Saharan languages (Stassen, 1997, p. 463). In aspect-oriented languages, the unmarked aspectual distinction is the opposition between imperfective and perfective (Bybee & Dahl, 1989; Dahl, 1985).

I will now present some examples which illustrate this contrast. The following utterances contain the Class II verb /igem/, ‘work, do’. The perfective and imperfective can be used in questions as follows.

(320) x-i-igem-á íjé nó njélé?
Q-2SG-do-IPFV 2SG.NOM what yesterday
‘What were you doing yesterday?’ AG:56:56

(321) x-i-igem íjé nó njélé?
Q-2SG-do.PFV 2SG.NOM what yesterday
‘What did you do yesterday?’ AG:57:00

These aspectual contrasts are reflected in the following possible answers to the questions (320) and (321) respectively.

(322) a-igém-á náŋ xɔmwɔk nàití njélé?
1SG-work-IPFV 1SG.NOM homework my.F yesterday
l-e-icáxá xàl sàn
SBO-3-start rain.NOM INF.rain
‘I was doing my homework yesterday when it started to rain.’ AH:00:01:15
The interpretation is that (322) is imperfective and (323) is perfective. The imperfective (322) allows for overlap of events (i.e. doing homework and rain falling). The perfective does not allow for overlap. Example (323) can only be meaningful if the homework is finished before it started to rain. This confirms that the form [aɪ̂gɛ́m] is perfective.

This analysis is in agreement with Comrie’s discussion of perfectivity and imperfection. He states that “perfectivity involves lack of explicit reference to the internal temporal constituency of a situation” where the “whole of the situation is subsumed as a single whole” (1976, p. 21). He also states that the general characterisation of imperfectivity involves “explicit reference to the internal temporal structure of a situation, viewing the situation from within” (1976, p. 24). In (322), the action of doing one's homework is something that the speaker is “inside”, in the sense that the speaker is currently involved in doing homework rather than considering it as something which is a single, homogenous activity.

A further example of the imperfective/perfective contrast is shown in the following examples using the Class II verb /icak/, ‘start, begin’. The consultant was asked to differentiate the two examples (324) and (325). He said that they have a similar overall interpretation (‘who started walking to the river?’). However, (324) has the sense of on-going activity (walking to the river) whereas (325) is concerned about the single experience of getting to the river. With this interpretation, the imperfective and perfective readings seem reasonable.

(324) ŋa l-e-icáxá lótòn à=xáří in:á
who SBO-3-start.IPVF walk.VN to=river that.F
‘Who started walking to the river?’ (i.e. Who started doing it (first)?) BU:01:00:58

(325) ŋa l-e-ícák lótòn à=xáří in:á
who SBO-3-start.PVF walk.VN to=river that.F
‘Who started walking to the river?’ (i.e. Who went there first?) BU:01:01:32

This distinction is also observed with Class 1b verbs. The following examples use the verb /tɔɔxɔ/, ‘kill’, ‘finish’. In (326), the verb stem is marked with the LH tonal pattern, indicating the imperfective. In (327), the verb stem has the LL tonal pattern, indicating the perfective.

(326) a-ɪgɛ́m náŋ xɔmɔ́k nàñtì ɲɔ́lɛ̀?
1SG-work.PFV 1SG.NOM homework my.F yesterday
l-e-icáxá xài sàn
SBO-3-start rain.NOM INF.rain
‘I did my homework yesterday then it started to rain.’ AH:00:03:50

(327) a-ɪgɛ́m náŋ xɔmɔ́k nàñtì ɲɔ́lɛ̀?
1SG-work.PFV 1SG.NOM homework my.F yesterday
l-e-ícák xài sàn
SBO-3-start PFV rain.NOM INF.rain
‘I killed my homework yesterday then it started to rain.’ AH:00:03:50
The use of the ventive can also indicate an action which is no longer occurring. The use of the ventive with the imperfective (as in (328)) and the use of the ventive and perfective (as in (329)), both indicate that the killing of the leopard is complete. However, in the case of (328), this utterance does not indicate the perfective aspect. Rather, it is an example of associated motion using the neutral or imperfective and implying something like ‘I went and killed a leopard (and came back)’.28

(328) á-tóxo-ì nàŋ xìwàrō
1SG-kill.N-VEN 1SG.NOM  leopard.ABS
‘I killed a leopard.’ EF:30:05

As discussed in section 6.1 above, the imperfective can also include a sub-group of other aspect types including habitual, continuous and progressive. These are discussed in section 6.4.3.4 below.

6.4.3.2 The neutral and imperfective contrast

There is a contrast between the neutral and the imperfective aspect. The following example is a question which is set in the imperfective aspect.

(330) x-ì-gém-á ñjé ñjìlê?
Q-2SG-do-IPFV 2SG.NOM yesterday
‘What were you doing yesterday?’ BQ:39:50

The answer is also given in the imperfective and refers to a period of some duration during which the speaker was cleaning the car.

28 Note that the form of imperfective and the neutral are the same for Class 1(b) verbs. Associated motion is discussed in section 5.4.5.2.
There is another form of this verb, /pot/, ‘clean’, which is neither explicitly perfective nor imperfective and uses the unmarked root, /pot/. As discussed in section 6.1 above, I am calling this the neutral aspect and I use the gloss N.

This agrees with Johanson’s description of neutral aspect where “the whole event, including its course and limits is envisaged in an integral way without any specific point being highlighted (2001, p. 11)”.

Smith discusses what she calls “aspectually vague” sentences and argues that the “Neutral viewpoint” should be used to describe those sentences which have “neither a perfective nor an imperfective morpheme” (1997, p. 119). In her terminology, the imperfective has open readings (i.e. no information about its endpoints) and the perfective has closed readings (i.e. initial and final endpoints are included). The neutral, however, can have both open and closed readings. Further examples are given in (334) and (335) with the verbs /mat/, ‘drink’ and /bor/, ‘break’.

These examples indicate that the neutral aspect could also be described as a generic or habitual aspect. Examples (332) to (335) describe actions which are of a general nature, rather than linked to a specific time event. These fit into the habitual-generic category described by Dahl (1985, p. 98). Lopit also has the suffix /-ita/, which is sometimes used to express a habitual or generic situation. This is discussed in section 6.4.3.4 below.
6.4.3.3 The neutral and the perfective contrast

There is also a contrast between the neutral and the perfective. The Class II(a) verb /idim/, ‘build’, is used in the neutral form in (336), where it refers to an action which is generic and not linked to a specific time event. The perfective from [aːdɪm] in (337) refers to an action which was started and completed in January.

(336) á-rá náŋ xaídímānī a-ídim náŋ xàjì
1SG-be 1SG.NOM builder.ABS 1SG-build.N 1SG.NOM houses.ABS
‘I am a builder. I build houses.’ DQ:03:58

(337) dè=cámí dók a-ídim náŋ xàjì náìnò
1SG-PFV.build 1SG.NOM house.ABS your.F.ABS
‘In January, I built your house.’ DQ:10:14

Another example of the neutral/perfective distinction is given with the Class Ia verb /mór/ ‘insult’. This verb can have a neutral, [óːmór], an imperfective, [òmórò], and a perfective form, [éːmór]. The neutral sense is given in the following.

(338) ò-mór isó įné xábó
3-insult.N FUT 3SG.NOM chief.ABS
‘He will insult the chief tomorrow.’ CH:15:21

The perfective, [éːmór], is used in the following example.

(339) éí-mór įné xábó ə-rá móître
3-insult.PFV 3SG.NOM chief.ABS IMM.PST morning
‘He insulted the chief this morning.’ CH:16:45

6.4.3.4 Continuative, progressive, habitual, repetitive

There is a range of affixes, as well as the reduplication process, which can convey a sense of the generic, progressive, habitual and repetitive in Lopit. These different types can all be regarded as sub-categories of the imperfective (as in Comrie’s classification (1976, p. 25); see section 6.1 above). Some of the affixes can have a number of aspectual interpretations and there is sometimes overlap in the various applications. The suffix /-ita/ can be used to express the continuative and the habitual. Reduplication is used for something that keeps happening or is repeated.
The suffix /-ita/

The suffix /-ita/ can be used to indicate something which happens regularly or repeatedly. I use the gloss CONT for continuative. The following example involves the verb /wal/, ‘cough’ and refers to a situation where a person is sick and keeps coughing into the evening.

(340) x-ò-wál-ità dè =îmàrìt
SEQ-3-cough-CONT to = evening.ABS
‘And he coughed into the evening.’ BH:37:46

It can be compared to the imperfective, which is given in (341). Although both (340) and (341) indicate that the person coughed for a significant period, it appears that the use of the continuative /-ita/ provides some emphasis, perhaps that the coughing was unusual.

(341) ò-wál-à sà nàbkɔtɔ
3-cough-IPFV hour.ABS one.F
‘And he was coughing for an hour.’ BH:35:54

Another example is given here with the verb /icer/, ‘burp’.

(342) e-ícèr-ità
3-burp-CONT
‘He keeps burping.’ BS:46:00

However, for some verbs, the suffix /-ita/ is used to express what might be normally described as the imperfective or progressive. The following examples are given for the Class Ia verb /ram/, ‘play’. This seems to be because /ram/ cannot form an imperfective with the normal suffix /-a/, as indicated in (344).

(343) é-ráì-ità xȃtò xódɔdítì xɔ=xitò nàŋɔrùwɔ dɛ=xɔì
3-play-CONT child.NOM male with=child.NOM female on=road
‘A boy and girl were playing on the road.’ BC:01:25:18

(344) *á-ráì-a nám kùrà
1SG-play-IPFV 1SG.S football

Nevertheless, for some verbs in some situations, there appears to be little difference between the use of the suffix /-ita/ and the imperfective suffixes /-a/, /-o/. This is the case for the verb /irwat/, ‘run away, escape’, in the following examples.
The suffix /-ita/ can also indicate a habitual aspect, which, of course, is somewhat similar to a continuous activity. In (347), it is used with the verb /ca/, ‘dance’, and the resulting clause can be translated as ‘I was dancing regularly’ or ‘I used to dance’. The use of the temporal adverb /ifa/, ‘PST’, defines the temporal viewpoint, so we know that the utterance refers to something in the past.

(347) á-cá-ítà náŋ ifà l-á-mápá náŋ dë=Tënìt
      1SG-dance-CONT 1SG.NOM PST SBO-1SG-live 1SG.NOM in=Torit
      ‘I used to dance (I danced often) when I lived in Torit.’  BI:14:01

When the suffix /-ita/ is used with the verb /j:ok/ ‘herd’, ‘care for (animals)’, it conveys the sense of a regular or habitual activity.

(348) a-íj:òx-ítà náŋ xísúŋ
      1SG-herd-CONT 1SG.NOM cows.ABS
      ‘I look after cows.’  DA:43:07

Since there is no grammatical tense in Lopit, the same expression can represent a present temporal or past temporal situation, depending on the context. The following example illustrates this for the verb /w:ɔŋ/, ‘sit’.

(349) ð-w:õŋ-ítà ǐŋé dë=xàrà èn:á
      3-sit-CONT 3SG.NOM on=chair this.F
      ‘He used to sit (or always sits) in this chair.’  DK:49:18

6.4.3.4.2 Reduplication

Reduplication is used to indicate a continuing, habitual or regular action. Reduplication can be both derivational and inflectional in Lopit and it is discussed in more detail in section 5.2.5.2. The following examples illustrate repetitive situations for Class 1 and Class II verbs ((350) and (351) respectively).
It might be possible to distinguish the suffix /-ita/ from reduplication. The suffix /-ita/ seems to indicate a regular or habitual situation (such as in (352) below), whereas reduplication is more specific and is often used in a narrative situation such as in (350) above.

6.4.3.5 The persistive prefix /IV-/

The prefix /IV-/ indicates that the activity is (or was) on-going and can usually be translated by ‘still’. It can be used with both activity and stative verbs and can be used with both imperfective and neutral aspect. In some Bantu languages (e.g. Swahili) as well as many European languages, persistive is expressed by an adverbial added to an imperfective (e.g. English ‘still eating’). Nurse states that the persistive “refers to a situation that held at one time (usually past) and holds at a later time (usually time of speaking)” (2008, p. 24). He uses the abbreviation PER. In Lopit, a specific prefix is used rather than an adverbial, but it seems to have the same function as what Nurse describes as persistive. I will adopt this term and the gloss PER here.

The vowel in the persistive prefix matches that of the preceding person-marking prefix, as shown in (353) where /IV-/ becomes /la-/. The prefix is also subject to the same processes of both mid-vowel assimilation and ATR harmony spreading from the syllable on the right, as is shown where the third person marking /e-le-/ is realised as [olo] in (354).

(350) ó-dú-dúná xímá bì dè=ixoì
3-REDUP-go.out fire.NOM indeed on=path.ABS
‘The fire kept going out on the way.’ Ikudo story (32), DY:06:36

(351) a-i-pá-páx-à nàŋ x-i-xèn bük in:á
1SG-II-REDUP-repeat-IPFV 1SG.NOM INF-read book this.F
‘I keep reading this book.’ or ‘I repeatedly read this book.’ BJ:34:39

(352) ó-dúp-ftà xímá l-š-xòt lójì:ámì
3-go.out-CONT fire.NOM SBO-3-blow.N wind.NOM
‘The fire keeps going out when the wind blows.’ DY:07:33

(353) á-lá-dàxà nàŋ
1SG-PER- eat.N 1SG.NOM
‘I’m still eating.’ DX:03:38

(354) ó-ló-toí ísò xóf bì möltè
3-PER-be.dry FUT ground.NOM indeed tomorrow
‘The ground will still be dry tomorrow.’ AU:00:59:50

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The same prefix is used with Class II verbs, in following case with /isuk/, ‘drive’, a word derived from Arabic, *yesuk*. In contrast to the process of reduplication with Class II verbs in 5.2.5.2 above, the prefix goes before the close front vowel of the verb.

(355) á-lá-ísùx-ó náŋ
1SG-PER-drive-IPFV 1SG.NOM
‘I’m still driving.’ BN:28:00

Although the vowel in the prefix /IV-/ is normally a copy of whatever vowel is found in the subject prefix, this is not the case with the 1PL marker. With the 1PL marker, one might expect [ɛɪ̯màtà] in (357). However, there is a form of front-vowel coalescence and [ɛɪ] becomes [ɛ] and the verb is [ɛl̃màtà].\(^{29}\) The simple imperfective form is shown in (356) for comparison.

(356) ɛ́-màt-à íjòxoi kòfi
1PL-PER-drink-IPFV 1PL.NOM coffee
‘We are drinking coffee.’ DW:48:54

(357) ě-léi-màt-à íjòxoi kòfi i̯jánà
1PL-PER-drink-IPFV 1PL.NOM coffee now
‘We are still drinking coffee (now).’ DW:48:40

As mentioned above, the persistive prefix can also be used with verbs with neutral aspect. The following examples distinguish the neutral, imperfective and perfective aspect in relation to the persistive. Example (358) shows the persistive used with the imperfective. Here, the speaker is indicating that the coffee drinking is still taking place. In example (359), with the persistive and the neutral, the speaker was drinking coffee, but is no longer drinking it.

(358) á-lá-màt-à náŋ kòfi
1PL-PER-drink-IPFV 1SG.NOM coffee
‘I am still drinking coffee.’ DW:50:21

(359) á-lá-màt náŋ kòfi
1PL-PER-drink.N 1SG.NOM coffee
‘I was drinking coffee’ (‘but now finished’). DW:50:01

\(^{29}\) Front-vowel coalescence is discussed in Section 2.4.4
The persistive cannot be used with the perfective. The constructions /a-la-i-mat/, ‘1SG-PER-PFV-drink’ and /a-i-la-mat/, ‘1SG-PFV-PER-drink’, were rejected by the consultant (DW:51:08). This is not surprising since, as discussed in section 6.4.3.1, the perfective does not refer to what Comrie calls the “internal temporal constituency of a situation” (1976, p. 21). The simple perfective is shown in (360) for comparison.

(360) à-i-màt nàŋ kòfì
1PL-PFV-drink 1SG.NOM coffee
‘I drank coffee.’ DW:50:15

Of course, with Class I verbs with roots beginning with /l/ the persistive and reduplication have the same form (and similar meaning), as shown here with the verb /lot/, ‘go’.

(361) ò-ló-lót ìnè à=sùkùl
3-PER/REDUP-go.N 3SG.NOM to =school
‘She is still going to school.’ AG:22:29

It should be noted that it is also possible to use a lexical verb to achieve the same meaning as the prefix /lv-/ . The Class I verb /rasa/, 'remain', 'stay', 'keep', can be used, for example, to produce an utterance with the same meaning as (353).

(362) à-rásà nàŋ dàxà
1SG-remain 1SG.NOM VN.eat
‘I’m still eating.’ EB:04:25

6.4.4 Inchoative

6.4.4.1 Overview of the inchoative

The term ‘inchoative’ is defined by Kroeger, who states that it “refers to a change of state or entering a state (to become X, e.g. get fat, get old)” (2005, p. 157). Bybee describes the inchoative (or inceptive, ingressive) as an expression indicating “the beginning of a situation, or entrance into a state” (1985, p. 147). In this section, I describe how the inchoative is marked in Lopit both on ‘property stative’ verbs and on ‘result state’ verbs (as defined in section 3.2.2). Property stative verbs are those that express property concepts (e.g. colour, size, shape). Result state verbs are the result of some kind of cognitive activity or previous event and include such verbs as ‘know’, ‘understand’, ‘like’, ‘hate’. These are stative verbs and can be intransitive and/or transitive.

There are four main ways of marking the inchoative on property stative verbs, which I call Inchoative 1, 2, 3 and 4 and these are summarized in the Table 6-8. They are discussed in
In detail in sections 6.4.4.2 to 6.4.4.5. There are a number of features which determine how the inchoative is marked. These are as follows:

- the verb class (Class I or II)
- the type of stative verb (‘property concept’ or ‘result state’)
- the aspectual viewpoint (neutral, imperfective or perfective)

Table 6-8: Different forms of the inchoative for property stative verbs

<table>
<thead>
<tr>
<th>verb root</th>
<th>property ‘is’</th>
<th>inchoative ‘became’</th>
<th>inchoative ‘became’</th>
<th>inchoative ‘becomes’</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>form</td>
<td>-PFV.root</td>
<td>-root.INCH</td>
<td>-root-VEN</td>
<td>-PFV-root-VEN</td>
<td></td>
</tr>
<tr>
<td>nok</td>
<td>è-nòk</td>
<td>è-nòxòn</td>
<td>è-nòx-iní</td>
<td>è-ŋà-nòx-iní</td>
<td>‘be hot’</td>
</tr>
<tr>
<td>riok</td>
<td>è-ròk</td>
<td>è-ròxò</td>
<td>è-ròx-iní</td>
<td>è-ŋà-ròx-iní</td>
<td>‘be black’</td>
</tr>
<tr>
<td>Class I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bwor</td>
<td>ò-bwór</td>
<td>ò-bwòr</td>
<td>ò-ŋà-bwór-iní</td>
<td>‘be white’</td>
<td></td>
</tr>
<tr>
<td>verbs</td>
<td>dɔ</td>
<td>ð-ðɔ</td>
<td>ð-ðɔ-rí</td>
<td>ð-ŋàð-ð-iní</td>
<td>‘be red’</td>
</tr>
<tr>
<td></td>
<td>sam</td>
<td>ë-sám</td>
<td>ë-sám-iní</td>
<td>ë-ŋà-sám-iní</td>
<td>‘be rich’</td>
</tr>
<tr>
<td></td>
<td>muno</td>
<td>ò-mùnò</td>
<td>á-mùneí</td>
<td></td>
<td>‘be happy’</td>
</tr>
<tr>
<td>Class II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>irat</td>
<td>a-ŋòt</td>
<td>a-ŋòt</td>
<td></td>
<td></td>
<td>‘be angry’</td>
</tr>
<tr>
<td>verbs</td>
<td>tlik</td>
<td>c-tli</td>
<td>c-tli</td>
<td>e-tli</td>
<td>‘be cold’</td>
</tr>
<tr>
<td></td>
<td>isaga</td>
<td>e-iságà</td>
<td>a-iságà</td>
<td>á-ŋà-iságà-t-iní</td>
<td>‘be tall’</td>
</tr>
</tbody>
</table>

Inchoative 1 is marked with the perfective marker /(x)ʈ-/ and examples are given for Class II property stative verbs in Table 6-8. Note that the example [aŋòt] can also be written (and expressed) as [áŋòt]. Inchoative 2 is marked on Class I property stative verbs using the same form as the infinitive of these verbs and are glossed as INCH (see section 5.2.4 on the infinitive forms of property stative verbs). Inchoative 3 is marked with the ventive suffix. Inchoative 4 is marked with the perfective /ŋa-/ and the ventive suffix and this is shown for Class I and Class II property stative verbs in Table 6-8.

The inchoative forms of result state verbs are less common. There are discussed in section 6.4.4.6. Some special forms of the inchoative are given in section 6.4.4.7.

6.4.4.2 Inchoative 1 (with the prefix /(x)ʈ-/)

The first type of inchoative marking involves the perfective prefix /(x)ʈ-/ which comes immediately in front of the root. This is used on both property stative verbs and on result state verbs.
For property stative verbs, the perfective prefix /x/- is only used for the inchoative on Class II verbs. The following examples involve the Class II verb /imarwak/, ‘be old’, with the first example showing the normal property stative verb and the second showing the inchoative form. The inchoative has a perfective viewpoint in the sense that the change of state is complete.

(363) a-imárwàk nàŋ
3SG-be.old.SG 1SG.NOM 'I’m old.' AG:01:11:43

(364) á-xi-imárwàk nàŋ
1SG-PFV-be.old.SG 1SG.NOM 'I’ve become old.' AT:15:28

Inchoatives with an imperfective viewpoint can also be formed with Class II stative property verbs and these are discussed in section 6.4.4.4. The inchoatives of Class I property stative verbs are discussed in sections 6.4.4.3 and 6.4.4.3.

The relationship between the inchoative and the perfective is rather common. It has been discussed by Comrie, who states that “the perfective of some verbs, in particular of some stative verbs, can in fact be used to indicate the beginning of a situation” (1976, p. 19). The use of the perfective to give an inchoative meaning to stative verbs is also reported in Maa. Table 6-9, from König (1993, p. 96), gives the inchoative sense for the verbs /dɔ/, ‘be red’ and /gol/, ‘be strong’.

Table 6-9: Perfective and inchoative verbs in Maa

<table>
<thead>
<tr>
<th>verb</th>
<th>gloss</th>
<th>English</th>
<th>verb</th>
<th>gloss</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɛ-ðɔ</td>
<td>3SG-be.red</td>
<td>‘is red’</td>
<td>ɛ-tɔ-dɔ-ɔ</td>
<td>3SG-PFV-be.red-PFV</td>
<td>‘has become red’</td>
</tr>
<tr>
<td>k-á-gɔl</td>
<td>k-1SG-be.strong</td>
<td>‘am strong’</td>
<td>a-ta-gɔl-o</td>
<td>1SG-PFV-be.strong-PFV</td>
<td>‘(I) have become strong’</td>
</tr>
</tbody>
</table>

6.4.4.3 Inchoative 2 (infinitive form)

The inchoative can be marked on Class I property stative verbs using the same form as the infinitive form of the verb. The infinitive forms of property stative verbs are discussed in section 5.2.4 and examples are given in Table 5-5 as well as in Table 6-10. Examples using the stative verbs /sam/, ‘be rich’, and /dɔ/, ‘be red’ are given in the (365) and (366). This construction, like Inchoative 1, is used when the inchoative has a perfective viewpoint. The verb stem is the same as the citation form of the infinitive (although the tonal patterns can be different). I have glossed this as ‘root.INCH’. The suffixes that are used to form the infinitive are /-on/, /-an/, /-o/, /-n/, /-ei/. These suffixes are not used to mark anything else on stative property verbs (although /-o/ is used to mark imperfective or middle voice
and /-ei/ is used to mark ventive on other (non-stative) verbs. One might say that these suffixes mark the perfective of Class I stative property verbs. However, these suffixes are not used for perfective marking elsewhere in the language. An example of the use of the infinitive form of the verb /sam/ is given in (367).

(365) á-sámán náŋ  
1SG-be.rich.INCH 1SG.NOM  
‘I’ve become rich.’ AR:26:50

(366) ñ-dən mánà  
3-be.red.INCH field.NOM  
‘The field became red (with sorghum)’. CC:39:40

(367) á-wák náŋ sàmán  
1SG-want 1SG.NOM be.rich.INCH  
‘I want to be rich.’ AY:01:00

The infinitive form, the stative form and the perfective inchoative form are shown for a range of verbs in Table 6-10. All the examples obtained are Class I verbs. The stem used for Inchoative 2 matches the infinitive for these verbs.

Table 6-10: Some stative verbs and their perfective inchoative forms

<table>
<thead>
<tr>
<th>verb root</th>
<th>infinitive</th>
<th>stative</th>
<th>inchoative PFV</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nok</td>
<td>noxon</td>
<td>ò-nòk</td>
<td>ò-nóxón</td>
<td>‘be hot’</td>
</tr>
<tr>
<td>riok</td>
<td>rioxo</td>
<td>è-riòk</td>
<td>è-rióxó</td>
<td>‘be black, dark’</td>
</tr>
<tr>
<td>dɔ</td>
<td>dɔn</td>
<td>ñ-dɔn</td>
<td>ñ-dɔn</td>
<td>‘be red’</td>
</tr>
<tr>
<td>sam</td>
<td>saman</td>
<td>è-sâm</td>
<td>è-sámán</td>
<td>‘be rich’</td>
</tr>
<tr>
<td>muno</td>
<td>munei</td>
<td>ò-mùnò</td>
<td>ò-mùnèf</td>
<td>‘be happy’</td>
</tr>
<tr>
<td>ñori</td>
<td>ñorìji</td>
<td>ò-ñòrì</td>
<td>ò-ñòrìjì</td>
<td>‘be green’</td>
</tr>
<tr>
<td>baŋ</td>
<td>baŋi</td>
<td>è-bàŋ</td>
<td>è-bàŋì</td>
<td>‘be afraid’</td>
</tr>
</tbody>
</table>

Thus, the marking of the inchoative on stative property verbs appears to be determined by verb class. For the perfective viewpoint, Class II stative property verbs mark the inchoative with the prefix /(x)Ir-/ and the Class I verbs use the infinitive form for the stem.

6.4.4.4 Inchoative 3 (with ventive/itive)

The third type of inchoative uses the ventive or itive suffix. As discussed in section 5.4.5, the use of directionals can have a broad range of meaning, often associated with movement
in space and time. The inchoative constructions formed with property stative verbs with the ventive/itive have a neutral or imperfective viewpoint.

The following two examples involve the verb /nok/, ‘be hot’, in external possession constructions. In (369), the ventive suffix /-ini/ is used to indicate the inchoative.

(368) ̀nòk ̀nà kwà
3-be.hot.N 1SG.NOM body.NOM
'I'm hot' (lit. ‘body is hot to me’). DZ:50:25

(369) ̀nòx-̀nì ̀nà kwà l̀-à-màt ̀nà balú
3-be.hot-VEN 1SG.NOM body.NOM SBO-1SG-drink 1SG.NOM beer.ABS
'I become hot if I drink beer.' EE:52:18

The example in (371) is derived from the stative property verb /riok/, ‘be black’. This example contrasts in aspectual viewpoint with the Inchoative 2 form given in (372), which has the perfective viewpoint. The non-inchoative form is given in (370).

(370) ̀rò̀k kwà nàtí
1SG-be.black.N body.NOM my.F
'I am black.' (lit. ‘my body is black’) CC:43:19

(371) ̀rìòx-̀nì kwà nàtí
3-be.black-VEN body.NOM my.F
I'm becoming black.' (lit. ‘my body is becoming black’) CC:43:28

(372) ̀rìòxò xìfwoì
3-be.black.INCH pot.ABS
‘The (cooking) pot became black.’ CC:40:40

Another example of the imperfective viewpoint inchoative with the ventive is given with the property stative verb /do/, ‘be red’ in (373). In this case, the person came whilst the sky was turning red. That is, the sky started turning red before he came and continued turning red after he arrived.

(373) ̀dó-̀-̀nì ̀dó ̀nlè l-̀-lòt-ú ī̀nè
3-be.red-E-VEN sky.NOM yesterday SBO-3-go-VEN 3SG.NOM
'The sky was turning red yesterday when he came.' EH:06:27

Inchoative 3 can also have neutral viewpoint. The following two examples are about changes that are generic or habitual. Thus, example (374) is a general statement (“when you talk
about the sky and what happens in the evening when the sun sets...it’s not happening now”,
EA:29:29).

(374) ò-dó-r-ìní ìdó tè=màrit
3-be.red-E-VEN sky.NOM at=evening.ABS
‘The sky becomes red in the evening.’  EA:28:31

(375) è-líx-ìní l-è-sà xài
3-be.cold-VEN SBO-3-rain rian
‘It becomes cold when it rains.’  EH:16:06

However, not all Class I property stative verbs can form these two types of inchoative (i.e.
Inchoative 2 and 3). With verbs like /iɔrìa/, ‘be angry’, /mùnɔ/, ‘be happy’ and /sàmàn/, ‘be rich’, the use of the ventive gives the meaning of ‘associated motion’, as shown in the
following and as discussed in section 5.4.5.2.

(376) ò-mùnò-nì ípɛ̀
3-be.happy-VEN 3SG.NOM
‘He is happy and is coming towards me.’  DY:45:34

It would appear that the interpretation of the use of the ventive on stative property verbs
depends on the verb semantics. With those verbs that have an impersonal, objective or
environmental meaning, such as colours, temperatures, being dry or wet, the Inchoative 3
is formed. With verbs which indicate an emotional state or personal human property (be
happy, afraid, rich, angry), the use of the ventive results in an associated motion interpretation. For these verbs, the inchoative is only expressed with the perfective
viewpoint (i.e. Inchoative 2).

6.4.4.5 Inchoative 4 (with perfective and ventive/ìtive)

It is possible to form inchoative constructions with both the prefix /ŋa-/ and the ventive
suffix. The prefix /ŋa-/, when used with finite verbs with a derivational suffix, is normally
the perfective prefix (see section 6.4.2.6 above). In example (377), the verb [ŋàdòrìnì] is
used to indicate that the sky has become red while the speaker was witnessing it; “you may
not be there at the start, but you are there during the change to the end” (EH:12:45).

(377) l-á-wú náŋ à=bàlì ì-ŋà-dó-r-ìní ìdó
SBO-1SG-go 1SG.NOM to=outside 3-be.red-E-VEN sky.NOM
‘When I went outside, the sky became red.’  EH:11:30
It is distinguished from inchoative 2, which is shown in the following example. In this case the change (i.e. the transition of the colour of the sky to red) was already complete when the speaker went outside.

(378) 1á-wú náŋ à=bble ó-dòn 1dí
SBO-1SG-go 1SG.NOM to=outside 3-be.red.INF sky.NOM
‘When I went outside the sky was (already) red.’ EH:10:49

It seems that inchoative 4 is used by a speaker who has witnessed the event. Another example is given with a Class II stative property verb /ɪlɪk/, ‘be cold’, in (379).

(379) è-ña-ìlìx-iní ni 1á-wú náŋ à=bble ṣòlè?
3-PFV-be.cold-VEN it SBO-1SG-go 1SG.NOM to=outside yesterday
‘It became cold when I went outside yesterday.’ EH:14:23

The use of the ventive to give an inchoative meaning is reported for Turkana (Dimmendaal, 1983b, p. 168). As discussed above in relation to Table 6-9, Maa forms the perfective inchoative with the perfective. It also forms a neutral (or non-perfective) inchoative with a suffix /-u/. Some examples from Tucker and Mpaayei are given in Table 6-11 (1955, p. 141). Thus Maa has something very similar to the Inchoative 1 (i.e. with the perfective) and Inchoative 3 (i.e. with the imperfective) that I have described for Lopit. It should be noted that Payne and Otero caution that the Maa inchoative suffix /-u(n)/ is strictly [+ATR] while the ventive is a [–ATR] suffix, /-ʊ/ (2016, p. 14). In Lopit, the ventive suffix is /+ATR/, as is the suffix used in Inchoative 3.

Table 6-11: Inchoative verbs in Maa

<table>
<thead>
<tr>
<th>‘I am...’</th>
<th>‘I become...’</th>
<th>‘I became...’</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>á-rók</td>
<td>á-rók-ù</td>
<td>á-tó-rók-à</td>
<td>‘black’</td>
</tr>
<tr>
<td>á-dó</td>
<td>á-dó-r-ù</td>
<td>á-tó-dó-r-ò</td>
<td>‘red’</td>
</tr>
<tr>
<td>á-iróbi</td>
<td>á-irópi-ju</td>
<td>á-irópi-ja</td>
<td>‘cold’</td>
</tr>
</tbody>
</table>

6.4.4.6 The inchoative for result state verbs

I have identified only two result state verbs which form the inchoative. Two forms have been observed, equivalent to Inchoative 1 (with the perfective prefix) and Inchoative 4 (with the perfective prefix and the ventive suffix). These are shown in the Table 6-12.
Table 6-12: Forms of the inchoative for result state verbs

<table>
<thead>
<tr>
<th>verb class</th>
<th>verb root</th>
<th>result state verb</th>
<th>inchoative</th>
<th>inchoative</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ijːen</td>
<td>a-ː-ijːen</td>
<td>a-ŋ-ː-ijːen-ũ</td>
<td>‘know’</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>imora</td>
<td>e-ː-imɔrɑ</td>
<td>e-ː-imɔrɑ</td>
<td>‘agree’, ‘be reconciled’</td>
<td></td>
</tr>
</tbody>
</table>

There are some differences compared to the property stative verbs. For the limited number of examples observed, it appears that Inchoative I can be formed with both Class I and II verbs. An example is given with the Class I verb /ijːen/, ‘know’ in (380) where the perfective prefix /x/- is used to form the inchoative. The resulting verb can be translated as ‘got to know’ or ‘understand’.

(380) a-ː-ijːen náŋ lɔxidɔŋ
1SG-know.N 1SG.NOM Lohidong.ABS
‘I know Lohidong.’ CA:19:18

(381) a-ː-ijːen náŋ lɔxidɔŋ
1SG-PFV-know 1SG.NOM Lohidong.ABS
‘I’ve come to know Lohidong.’ EA:39:02

Some examples using the Class II verb /imora/, ‘agree’, ‘be reconciled with’, are shown in (382) and (383). The first utterance uses the neutral aspect and the second has the perfective marking (falling tone on the close front vowel) to form the inchoative.

(382) e-ː-imɔrɑ lɔpit xɔ=tɔpɔsɔ
3-agree.N Lopit with = Toposa
‘The Lopit are reconciled with the Toposa.’ DR:44:02

(383) e-ː-imɔrɑ isɔ xɔ=tɔpɔsɔ
3-PFV-agree FUT with = Toposa
‘They are becoming reconciled with the Toposa.’ DR:45:40

In addition, from the limited number of examples, it appears that one cannot distinguish any aspectual viewpoint. The aspectual viewpoint in (381) appears to be perfective, whereas it appears to be imperfective in (383). More research is required to understand this.

With both the perfective prefix and the ventive suffix, the verb has an inchoative (or perhaps inceptive) meaning. This is illustrated in (384).
It appears that when the ventive suffix alone is used, there is a change in meaning of the verb (which is common with the use of the ventive/itive, see section 5.4.5). When the ventive is used with the verb root /ijːen/, ‘know’, the resulting verb can be translated as ‘recall,’ ‘remember’.

6.4.4.7 Some special forms of the inchoative

A special application of the perfective/inchoative is used with the verb /ɟɔ/, ‘say’. In (386), the perfective form [áxìjɔ] is used in what could be described as a serial verb construction which can be translated as ‘about to’ or ‘going to’. This indicates a change in state (i.e. from ‘stationary’ to ‘going’). In these constructions, the second verb is finite, but is not prefixed with the subordinate marker. Normally when an auxiliary verb is used with a main verb, the semantically main verb is prefixed with the subordinate marker or the sequential marker (this is discussed in section 7.2.4).

A second example is given in (387). In this example, the subject marker on the second verb [ásá] in (387) is /a-/ I interpret the prefix /a-/ as a logophoric marker so that the utterance is literally interpreted as ‘Rain, says it, rains’ (see section 9.4.4 on logophoricity).

There are similar constructions in other African languages. Heine describes it as the ALMOST or ‘proximative’ aspect (1994, p. 35). However (in contrast to Lopit), Heine states that it often uses a verb meaning ‘want’, ‘desire’, ‘seek’ or ‘look for’ (1994, p. 41). He gives the following example from Chamus, a dialect of Maa, which uses the verb eyyue, ‘want’.

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Another special inchoative construction in Lopit is formed when the verb /ra/, ‘be’, is used in the perfective. The word [éxirá] can be translated literally as ‘it has become (time)’ and, more usually, as ‘let us’.

In contrast to the finite second verb with [áxìɾá] in (386) and [éxìɾá] in (387), the second verb with [éxirá] is in the non-finite form.

It might be possible to regard these two constructions (i.e. [áxìɾá] ‘he is about to’, and [éxirá] + INF, ‘let’s VERB’) as examples of the ‘inceptive’ rather than the ‘inchoative’. Smith states that the ‘inceptive’ refers “to the beginning of an event” and the ‘inchoative’ refers “to the coming about of a state” (1997, p. 77). In any case, these two constructions both use the same perfective prefix marking as the Inchoative 1.

6.5 Modality

6.5.1 Introduction

In this study, I distinguish between the terms MOOD and MODALITY. I consider the term MOOD to describe the categories of the declarative, the imperative and the interrogative (see, for example, Kroeger (2005, p. 163) and Dixon (2010a, p. 95)). Imperatives are discussed in section 6.6 and interrogatives are discussed in section 7.7.

In broad terms, MODALITY is concerned with “the status of the proposition that describes the event” (Palmer, 2001, p. 1). It can be said to signal “the speaker’s attitude toward the proposition” (Givón, 1995, p. 112). The speaker’s attitude, or the judgements that he or she makes concerning the proposition, are often described as either epistemic or deontic (Givón, 1995, p. 112; Kroeger, 2005, p. 166; Palmer, 2001, p. 8).
Epistemic modality expresses the speaker’s state of knowledge: truth, belief, possibility, probability (i.e. the factual status of the proposition). The speaker is “signaling degrees of knowledge” (Saeed, 2016, p. 135). Deontic modality expresses the speaker’s judgements of conditioning factors on the agent in the proposition: obligation, permission, desirability, ability. It is where “the verbs mark the speaker’s attitude to social factors of obligation, responsibility and permission” (Saeed, 2016, p. 135). Some linguists describe an additional category of modality, which they call dynamic (Nuyts, 2006, p. 2; Palmer, 2001, p. 9). Dynamic modality relates to ability and willingness and can be viewed as a sub-category of deontic modality.

In Lopit, modality is mostly encoded on the verb. Prefixes are used in Lopit and I have identified four modal prefixes. The choice of the descriptors for these prefixes is somewhat arbitrary as a number of different terms could be used. In addition, there is often a range of meanings associated with each prefix. I have adopted the terms irrealis, potential, conditional and obligative. The prefixes, their descriptor, the main meanings which they encode, and their modality type are listed in Table 6-13. These prefixes and their descriptors are discussed in sections 6.5.2 to 6.5.5. Lexical expressions of modality also occur in Lopit and these are discussed in section 6.5.6.

<table>
<thead>
<tr>
<th>prefix</th>
<th>descriptor</th>
<th>gloss</th>
<th>main meanings</th>
<th>modality type</th>
</tr>
</thead>
<tbody>
<tr>
<td>nai-</td>
<td>irrealis</td>
<td>IRR</td>
<td>counterfactual, hypothetical, conditional</td>
<td>deontic</td>
</tr>
<tr>
<td>ma-</td>
<td>potential</td>
<td>POT</td>
<td>possibility, probability</td>
<td>epistemic</td>
</tr>
<tr>
<td>mai-</td>
<td>conditional</td>
<td>CON</td>
<td>conditional</td>
<td>deontic</td>
</tr>
<tr>
<td>tV-</td>
<td>obligative</td>
<td>OBL</td>
<td>obligation, intention, wishing</td>
<td>deontic</td>
</tr>
</tbody>
</table>

### 6.5.2 The prefix /nai-/, irrealis marker

I describe the prefix /nai-/ as an irrealis marker. It can indicate the counterfactual; i.e., describe situations which did not, or cannot, happen. It can also indicate the hypothetical; i.e. describe something that could occur. I have glossed /nai-/ as 'IRR, irrealis'. This prefix

---


always has a falling tone. The counterfactual is illustrated in the following two examples, where it is used in both clauses in each example. The second example, (392), uses the negative in the subordinate clause. Note that there is no subordinate marker (SBO) on the subordinate clauses in examples (391) to (394). This appears to be a feature of verbs containing modal prefixes in subordinate clauses (the subordinate marker, /l-/ SBO, is discussed in section 9.1.3).

(391) ẹ-ŋa-i-wòló ụjé nàŋ tè = ikàŋà
2>1-IRR-see.PFV 2SG.NOM 1SG.ABS at = Ikanga
ẹ-ŋa-i-ním-ù ụjé nàŋ
2>1-IRR-choose-VEN 2SG.NOM 1SG.ABS
‘Had you seen me at Ikanga, you would have chosen me.’ AF:1:27:27

(392) á-ŋa-ná náŋ l-á-mweí
1SG-IRR-not.be 1SG.NOM SBO-1SG-be.sick
á-ŋa-ibǒŋ náŋ xɔ=xi:jò xɔ-nà l-ɔ-lóŋà
1SG-IRR-meet 1SG.NOM with = people PL-REL SBO-3PL-be.many
‘Were I not sick (if I weren’t sick), I would have met many people.’ AD:1:25:40

The hypothetical is illustrated in (393) and (394), which both refer to possible, but not yet realised, events in the future.

(393) ẹ-ŋa-cá ịnɛ ẹ-ŋa-i-jeità ịnɛ inọtítí
3-IRR-dance 3SG.NOM 3-IRR-have 3SG.NOM dancing things
‘She would dance if she had dancing things.’ BI:21:37

(394) è-llibá i-ŋa-ɲi:m-ù ụjé bùk
3-be.good 2SG-IRR-choose-VEN 2SG.NOM book.ABS
‘It is good if you choose a book’, ‘it would be good if you chose a book.’ AF1:15:11

Examples (391) to (394) can be described as conditionals. These are discussed in more detail in section 9.7. It might be sometimes possible to gloss /ŋai-/ as a conditional marker.

The prefix /ŋai-/ can be distinguished from the perfective marker /ŋa-/ (which is discussed in Section 6.4.2.6 above). Examples (394) and (395) illustrate the difference. The first, (394), refers to the act of choosing a book and this act has not occurred.

In (395), the context involves one person who is about to choose a (second) book and a second person says “No, you have chosen a book”, implying the first person has already chosen a book.
Apart from the close front vowel in the irrealis prefix, there is also a difference in the tonal pattern. The perfective form, [ŋaŋi], has the pattern H-L-H-L whereas the irrealis form, [ŋaŋimu] in (394), has the pattern H-HL-L-L. The key difference is seen on the tone on the mood/aspect prefix and the tone on the first vowel of the verb root (i.e. H-L-H-L for /ŋa-/ and H-HL-L-L for /ŋai-/).

This is also shown in example (396), where the perfective prefix /ŋa-/ is used with the Class II verb /idim/, ‘build’, to form the word [ŋaŋidimáŋ], (3SG > 1SG-PFV-build-DAT), which has the tone pattern L-H-H.

This contrasts with the irrealis form [ŋaŋidimáŋ] in example (397). Here, the second target of the diphthong in the prefix /ŋai-/ appears to coalesce with the initial vowel of the stem to give the tone pattern L-HL-H-H. The irrealis prefix on class II verbs has the same tone pattern, [ŋai-], HL, which occurs with Class I verbs. Once again, the key difference is seen on the tone on the mood/aspect prefix and the tone on the first vowel of the verb root (i.e. H-L-H-L for /ŋa-/ and H-HL-L-L for /ŋai-/).

Sometimes the prefix /ŋai-/ is expressed as [ŋa] rather than [ŋai]. This is shown with the irrealis prefix on the verb /ça/, ‘dance’ in (398). In the first clause the verb is [ŋaŋacá] rather than [ŋaŋacá]. The tone marking on the irrealis prefix is [ŋa], which indicates that it is derived from [ŋai]. This could be an example of front-vowel coalescence, which is discussed in section 2.4.4.

Clauses with modal predicates (involving verbs with the /ŋai-/ prefix) cannot normally stand alone. For example, the clauses [ŋaŋacá ŋe] or [ŋaŋjejítì ŋe] from (393) cannot be used as independent clauses. However, when the clause relates to something that should or
could have happened in the past, it is possible to have an independent clause. This is illustrated in the following example where that speaker did not plant seeds and expresses the view that he/she should have done so.

(399) à-ŋaî-ŋa-tómò-k nàŋ xìmpòmò ìsàbít nàŋnlè l-ò-wù
1SG-IRR-PFV-dig-DAT 1SG.NOM seeds REL.F.PST SBO-3-go
‘I should have planted the seeds last week.’

Another example is given in (400), which is taken from a story involving someone called Ihurrak and a squirrel, here referred to as a ‘person’. This occurs at a point in the story when the squirrel is just about to spear Ihurrak and Ihurrak now regrets that she hadn’t killed the squirrel earlier.

(400) x-jà ìfà ìxúràk
SEQ-3-say PST Ihurrak
woiwoi à-ŋaî-ŋa-t:óxo-ì lèfà tòxòmì bèrèn
oh no, 1SG-IRR-PFV-kill-VEN PST person.ABS before
‘And Ihurrak said, “Oh no! I should have killed him before!”’ Ikudo story (109)

Both (399) and (400) have verbs which contain both the irrealis prefix /ŋai-/ and perfective prefix /ŋa-. The modal prefix is placed before the perfective prefix.

6.5.3 The prefix /ma-/, potential marker

The morpheme /ma/ is used to mark the potential, that is, something which is possible to probable. An example of a verb with the prefix /ma-/ is shown with the verb /ca/, ‘dance’ in the following conditional utterance.

(401) ì-má-cá ìŋè è-ŋaî-ijejètì ìŋè ìŋòtìtì
3-POT-dance 3SG.NOM 3-IRR-have 3SG.NOM dancing things
‘She might dance if she had dancing things.’ Bi:21:37

The morpheme /ma/ can occur as a particle as well as a verbal prefix. The use of the prefix and the particle can be used to convey different levels of probability as is shown in the following examples with the verb /ila/, ‘wash’. Example (402) indicates certainty. If there is some doubt, one would use the particle /ma/, as in (403). If there is more doubt or an obstacle, one would use the prefix /ma-/, as in (404).

(402) á-ìlà ìsò nàŋ
1SG-wash FUT 1SG.NOM
‘I will wash.’ AC:35:30
Even further levels of doubt can be expressed with both the particle and the prefix. The potential prefix /ma-/ is distinguished from the perfective prefix /ŋa-/. An example is given in (406). The potential prefix is placed in front of the /ŋa-/ prefix, just as the irrealis prefix is placed before the perfective prefix if they occur together (see (399) and (400)).

(405) á-má-flá ma isó náŋ l-ɔ-nɔk xɔliŋ
1SG-POT-wash POT FUT 1SG.NOM SBO-3-be.hot sun.NOM
‘I might wash if the sun shines.’ AC:40:20

The potential prefix /ma-/ is distinguished from the perfective prefix /ŋa-/. An example is given in (406). The potential prefix is placed in front of the /ŋa-/ prefix, just as the irrealis prefix is placed before the perfective prefix if they occur together (see (399) and (400)).

(406) è-má-ŋà-t:óxo-í ìjè leimé
3-POT-PFV-kill-VEN 2SG.ABS lion.NOM
‘The lion might have killed you.’ CI:56:28

In comparison to the prefixes /ŋai-/ and /mai-/, the prefix /ma-/ can be used in stand-alone clauses, as shown in (406).

6.5.4 The prefix /mai-/ conditional marker

There is a prefix /mai-/ which appears to be different from the prefix /ma-/. The prefix /mai-/ seems to have a conditional/consequent meaning and is glossed as CON. It appears to be similar to the /ŋai-/ prefix discussed above. Conditional clauses are discussed in detail in section 9.7.

(407) i-mai-rá ìjè xábò i-mai-lwáxá-k ìjè ɔjoxoi
2SG-CON-be 2SG.NOM chief.ABS 2SG-CON-help-DAT 2SG.NOM 1PL.ABS
‘If you were the chief you would help us.’ AC:24:00

(408) i-mai-wòló ìjè xábò i-mai-rük ìjè ìnè
2SG-CON-see 2SG.NOM chief.ABS 2sg-CON-like 2SG.NOM 3SG.ABS
‘If you met the chief you would like him.’ AB:07:35
6.5.5 The prefix /tv-, obligative marker

The prefix /tv- is a modal marker and usually indicates a sense of obligation and is glossed as obligative (OBL). It can also have a broader range of meanings including intention and wishing.

It is mostly used in the third person although it is sometimes used in the first and second person. It is used with both Class I and Class II verbs. Example (409) is with the Class II verb, /diman/, ‘build’ and example (410) shows the Class I stative verb /liba/, ‘be good’. Note that, as with the persistive marker /lv-, the vowel matches that of the person-marking prefix, and is similarly affected by mid-vowel assimilation and ATR harmony. This prefix is segmentally similar to the Class I imperative /te-.

(409) á-ijeítá náŋ ɲoróbìà
1SG-have 1SG.NOM money.ABS
à-tà-dimá-k náŋ mòchè xàjí.
1SG-OBL-build-DAT 1SG.NOM father.ABS house.ABS
‘I have money. I should build my father a house.’ CU:19:54

As mentioned above, this prefix can have a range of meanings. The sense of ‘should’ or ‘ought’, is extended to indicate a wish for a change as in (410), which can be regarded as a “kind of prayer” (AY:27:38). In this sense it could be more optative (‘wishing’) than obligative (‘obligation’). Something similar is expressed in (411) and (412), where both utterances are regarded as wishes or prayers.

(410) è-té-libà wúr:é
3-OBL-be.good children.NOM
‘Let the children be good.’ (lit. ‘The children should be good.’) AY:27:38

(411) è-té-lwák jók iĵóxoi
3-OBL-be.good god.NOM 1PL.ABS
‘Let God help us.’ (lit. ‘God ought to help us’.) BY:46:27

(412) è-té-sá xaǐ
3-OBL-rain rain.ABS
‘Let it rain.’ (lit. ‘The rain should rain.’) BY:46:45

The following utterance provides another example of the broader meanings of the prefix /tv-. It does not indicate a future tense but, rather, indicates that the speaker intends to teach the hearer to sing. It could be regarded as a marker of intention, which is category G in Dixon’s description of modality (2012, p. 28).
The prefix /tV-/ is also used in complement clauses. In (414), it is used with the verb /inefa/, 'catch', 'arrest', and it has the sense of intention, as was seen with (413) above.

(414) ɛ́-báŋ xìjó è-te-ínéfá-ɾí xìjó  
3-be.afraid COMP 3-OBL-catch-IT people.NOM  
'She is afraid that she will be arrested. (lit. ‘people will arrest her’)’  DU:12:22

The verb in the complement clause can be marked in the first person as shown in (415). It is sometimes marked in the second person (416), but this is not common.

(415) ɛ́-báŋ ñè xìjó á-ta-ínéfá-ɾí nàŋ ñè  
3-be.afraid 3SG.NOM COMP 1SG-OBL-catch-IT 1SG.NOM 3SG.ABS  
'She is afraid that I will arrest her.’  DU:19:22

(416) ɛ́-báŋ ñè xìjó í-ti-ínéfá-ɾí ñtì ñè  
3-be.afraid 3SG.NOM COMP 2-OBL-catch-IT 2PL.NOM 3SG.ABS  
'She is afraid that you will arrest her.’  EB:27:42

However, with many matrix verbs (/ifi/, ‘ask’; /lwák/, ‘help’; /wák/, ‘want’; /laxa/, ‘leave’) the verb in the complement clause is marked with the third person pronominal prefix. This marking is used for first, second and third person implicit subject of the complement clause, as shown in (417) to (419). It appears that only third person marking is used in this kind of construction, as if it is some kind of impersonal construction. For example (418) might be translated as something like ‘He asked that you are the one who helps him’.

(417) e-íffi ñè nàŋ è-tê-lwák ñè  
3-ask.PFV 3SG.NOM 1SG.ABS 3-OBL-help 3SG.ABS  
'He asked me to help him.’  DU:24:59

(418) e-íffi ñè ñè è-tê-lwák ñè  
3-ask.PFV 3SG.NOM 2SG.ABS 3-OBL-help 3SG.ABS  
'He asked you to help him.’  DS:58:38

---

32 Complement clauses are discussed in 9.4.
The prefix /tɛ-/ can also be used in a negative construction. Note that there is third (and not second) person marking on the negative auxiliary /ɲa/, ‘not.be’.

With some verbs, the /tV-/ prefix is not fully expressed. With these verbs (e.g. /ino/, ‘go’, /ijoŋ/, ‘come’), the close front vowel is used accompanied by a tone change, as shown in (421). It appears that there is a process of elision, whereby [ɛtɛnɔ] has changed to [ɛnɔ] or [ɛno]. The consultant said that “we can’t say [ɛtɛnɔ] … so we say [ɛnɔ]” (BYː47ː14). Example (421) contrasts with (410) to (412), which maintain the prefix /tɛ-/. This process of segmental elision with preservation of the tone is similar to the perfective /x)-/ prefix discussed in section 6.4.2.1 in relation to examples (298) and (299).

6.5.6 Lexical expressions of modality

There are verbs which can be described as modal verbs, although those examples so far observed are loan words. One example is /remik/, “be able, can” (i.e. ability and possibility) which is used with a verb in the infinitive form.

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The Lopit consultants said that this word (/remik/) is a Otuho word meaning ‘be able’, ‘can’, (see (Muratori, 1948, p. 27)). There is another verb /ixeder/, ‘be able’, which is also used. This is probably derived from Arabic, qaḍara (yaqdiru) ‘be able’.

(424) a-ixédér náŋ x-ijír tòrômílè
1SG-be.able 1SG.NOM INF-drive car.ABS
‘I can drive a car.’ CJ:18:21

Some modalities can be expressed lexically, i.e without special grammatical marking or even special modal verbs. As discussed above the verb /ɲar/, which has similar meaning to the English ‘be good’, is used to imply a sense of obligation as seen in the following.

(425) è-ɲár l-i-wóló jë diktòr
3-be good SBO-2SG-see 2SG.NOM doctor
‘You must see a doctor’ (Lit. ‘It is good if you see a doctor’). AA:11:00

Another method of conveying expectation or obligation is the idiomatic (impersonal) construction [ɔ̀ɟɔ́xìjóndàŋ], ‘people say to me’ as illustrated in (422). This is regarded as less demanding than /ɲar/, ‘be.good’.

6.5.7 Summary of modality

Lopit has a range of modal distinctions, including the irrealis, the potential, the conditional and the obligative. In some cases, there is only limited information on these in other EN languages, but it appears these languages have fewer modal affixes (see Table 6-14). This appears to be a significant distinction between Lopit and the other EN languages.

| Table 6-14: Modal marking in Eastern Nilotic languages |
|---|---|---|---|---|---|
| mode | Lopit | Otuho | Maa | Ateso | Turkana |
| irrealis | ɲài- | - | te- | kW- | - |
| potential | ma- | - | m(a)- | - | - |
| conditional | mai- | - | kó- | k- | - |
| obligative | tV- | - | - | - | - |

Otuho uses a range of adverbs (the equivalent of ‘if’, ‘when’, ‘as’ etc.) without any apparent change in the verb (Muratori, 1938, pp. 439–447). The prefix k- in Turkana appears to be similar to the Lopit subordinate marker (/l-/ , SBO) in that it is placed before the bound pronominal marker and is only used insubordinate clauses (Dimmendaal, 1983b, p. 185). It appears to be similar in Ateso (Barasa, 2017, p. 202; Hilders & Lawrance, 1957, p. 29). Maa uses the prefix tV- to encode the subjunctive as well as the obligative and perfective (D. L. Payne, 2015b). Spagnolo states that “there is no subjunctive or conditional mood in Bari”
and that “simple tense constructions helped by conjunctions and verbs give the required
effect” (1933, p. 231). Similarly, Cohen’s grammar of the related language Kuku does not
list any examples of subjunctive, conditional or irrealis morphology (2000, pp. 72–98).

6.6 Imperatives and hortatives

6.6.1 Imperative

The imperative prefixes can be regarded as portmanteau prefixes which combine imperative
and pronominal marking. Different forms are used for singular and plural, for Class I and
Class II verbs. Imperatives are also dependent on whether the action of the command refers
to a discourse participant or a non-discourse participant. The range of prefixes is shown in
Table 6-15.

<table>
<thead>
<tr>
<th>person and number</th>
<th>Class I</th>
<th>Class II</th>
</tr>
</thead>
<tbody>
<tr>
<td>2SG</td>
<td>tɛ-</td>
<td>ɪ- (+ tone)</td>
</tr>
<tr>
<td>2PL</td>
<td>ɪtɪ-</td>
<td>ɪ- (+ tone)</td>
</tr>
<tr>
<td>2 with 1SG object</td>
<td>xoɪ-</td>
<td>xoɪ-</td>
</tr>
<tr>
<td>2 with 2 object</td>
<td>tɛɪ-</td>
<td>ɛɪ-</td>
</tr>
<tr>
<td>1PL</td>
<td>xatɪ-</td>
<td>xatɪ-</td>
</tr>
</tbody>
</table>

In this section, I commence with a description of canonical imperatives (or commands with
a second person reference) (Aikhenvald, 2010, p. 17); i.e. those in the first two rows of Table
6-15. I then examine those imperatives where the action of the command refers to a
discourse participant. Finally, I look at commands which are addressed in the first person
plural.

The tone patterns for Class I singular imperatives is usually H.L, H.H.L, or H.H.L.L,
depending on the length of the word. The tone patterns for plural imperatives are usually
H.L and H.H.L.L depending on the length of the word. Some examples are given in Table
6-16.

<table>
<thead>
<tr>
<th>stem</th>
<th>singular</th>
<th>pattern</th>
<th>plural</th>
<th>pattern</th>
<th>English</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>tɔwɔʔ</td>
<td>H.L</td>
<td>ʃtɔwɔʔ</td>
<td>H.L.L</td>
<td>‘sing’</td>
<td>ED:56:16</td>
</tr>
<tr>
<td>CVC</td>
<td>tɔpɔt</td>
<td>H.L</td>
<td></td>
<td></td>
<td>‘clean’</td>
<td>DA:01:02</td>
</tr>
<tr>
<td>CVCV</td>
<td>tɛfɪjɛ</td>
<td>H.H.L</td>
<td>ʃtfɪfɪjɛ</td>
<td>H.H.L.L</td>
<td>‘clean’</td>
<td>AD:29:09</td>
</tr>
</tbody>
</table>
The Class I imperative prefix undergoes mid-vowel assimilation as shown in the following utterance where /te-/ is expressed as [tə] in [təbɔːt].

(426) l-í-xí-bá́  fjjé́  tɔ-ðɔt a=xàŋ nàtí
SBO-2-PFV-arrive 2SG.NOM IMP.SG-go.direct to=home.ABS my.F.ABS
‘When you arrive, go straight to my place.’ BC:41:41

For Class II verbs, the normal imperative is the same as the verb stem, except that the singular and plural forms have different tonal patterns. The singular has a H.H.L pattern and the plural has a H.L.F pattern for iCVC verbs. These are illustrated in (427) and (428). Further examples are given in Table 6-17. The tone pattern for Class II singular imperatives is the same as for Class I singular imperatives. The tone patterns for the plural imperatives are different.

(427) jñáx-à  róří  nàñà  l-í-jó  fjjé
IMP.SG.repeat-IPFV words.ABS those.F.PL SBO-2-say 2SG.NOM
‘Repeat those words you said!’ DY:17:32

(428) jñàx-à  róří  nàñà  l-í-jó  ìtζí
IMP.PL.repeat. IPFV words.ABS those.F.PL SBO-2-say 2PL.NOM
‘Repeat those words you(PL) said!’ DY:17:44

<table>
<thead>
<tr>
<th>stem</th>
<th>singular pattern</th>
<th>plural pattern</th>
<th>English</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>iCV</td>
<td>ínò</td>
<td>H.L</td>
<td>N/A</td>
<td>‘go.SG’ BP:29:12</td>
</tr>
<tr>
<td>iCGV</td>
<td>ìfwò</td>
<td>H.L</td>
<td></td>
<td>‘cook’</td>
</tr>
<tr>
<td>iCVCV</td>
<td>íbárrà</td>
<td>H.H.L</td>
<td>íbárrà</td>
<td>H.L.F  ‘arrive’ DY:18:29</td>
</tr>
<tr>
<td>iCVCV</td>
<td>ídšló</td>
<td>H.H.L</td>
<td>ídšló</td>
<td>H.L.F  ‘sing’ ED:55:50</td>
</tr>
<tr>
<td>iCVCV</td>
<td>írìbõ</td>
<td>H.H.L</td>
<td>írìbõ</td>
<td>H.L.F  ‘hit’ ED:59:46</td>
</tr>
</tbody>
</table>

Imperatives (like infinitives) can also be inflected for aspect. The utterance in (429) is a command to keep digging, i.e. imperfective aspect, whereas the subsequent utterance, (430), is a command in the neutral aspect (see section 6.4.3 for information on the neutral aspect). Note that the tone pattern is determined by the number of syllables in the word and not by the syllable structure of the verb root.

(429) tò-púr-ðò
IMP.SG-dig-IPFV
‘Keep digging!’ DA:05:18
In addition to aspect, imperatives can also have reduplication and derivational marking, as shown in the following example with the Class II verb /iduxu/, ‘bring’, ‘take’. The tonal patterns described in Table 6-16 and Table 6-17 do not usually apply when derivational suffixes have been added and this is an area for further work.

When a discourse participant (i.e. first or second person) is mentioned in the command, different forms are used, depending on whether the discourse participant is in the first or second person. When the discourse participant is in the first person, the imperative prefix is /xɔɪ-/ for both Class I and Class II verbs. An example of a Class I verb is given in (432) with the Class I verb /lwak/, ‘help’. Example (432) is a command to help the speaker. This compares with (433), where the command is to help a third person. This is an analogous system to that used with subject and object markers in declarative verbs, which is discussed in section 5.3.2 above.

An example with a Class II verb (in this case, /itwota/, ‘show’) is given in (434). There appears to be no difference in the sound of the prefix between the two verb classes. That is, the initial vowel of the Class II verb root coalesces with the second target of the diphthong in the prefix /xɔɪ/.

Another example is given in (435), this time with two objects, using the Class II verb /ibi/, ‘throw’, ‘vote’.
However, the normal imperative marker is used when the discourse participant is mentioned in an oblique construction, e.g. [dè nàŋ], ‘for me’.

When the discourse participant is an object in the second person, the marker /tɛɪ-/ is used for Class I verbs. An example is given in (437), which involves external possession (see section 7.4.2 below). In this example, the verb /fija/, ‘clean’, is a Class I verb, which makes it clear that the prefix is /tɛɪ-/ and not /te-/. The imperative marker /tɛɪ-/ is used because of the reference to ‘your hands’. This is external possession with no applicative derivation (see section 7.4.5 on external possession).

When a Class II verb is used in an utterance similar in meaning to (437), a different marker, /ɪ-/, is used. The following example used the verb /ila/, ‘wash’.

It is possible to get double imperatives using the verbs /ino/, ‘go’ and /ijoŋ/, ‘come’. The following two utterances, (440) and (441), each appear to be produced as a single intonation unit.
There is a first person form of the imperative, /xat-/i-, which can be translated as ‘let’s’ and is used when the speaker requests some kind of joint activity. At this stage, no tonal pattern is apparent in the verb stem.

There is another construction which could be interpreted as a first person plural imperative (or perhaps as a hortative). This construction is formed with the verb /ra/, ‘be’, when is used in the perfective. This can be interpreted as an inchoative or inceptive construction and the verb [éxirá] is translated as ‘let us’. This is discussed in section 6.4.4.6.

In terms of imperative marking, Lopit is somewhat similar to other Eastern Nilotic languages, at least for Class I verbs, and examples from the various languages are shown in Table 6-18. Most use some form of the /tV-/ marker. Class II verbs in Lopit and Otuho are the same as the verb root, except that there is a distinct tonal pattern (see Coates for Otuho (1985)). The absence of the /k-/ prefix on Class II verbs in the Lotuxo-Maa group is part of the ‘moveable k-’ phenomena in Nilo-Saharan languages, whereby “some languages show forms with the prefixed k- and others without this prefix” (Greenberg, 1966, p. 116).

| (441) | jìôŋ | xɔt-róm5-k | nàŋ | mânà |
| IMP.com | IMP.2>1-plough-DAT | 1SG.ABS | field.ABS |
| ‘Come and plough me the field!’ | BR:37:10 |

| (442) | xàtì-rígá | tìfi |
| IMP.1PL-look.at.N | TV |
| ‘Let’s watch TV!’ | AD:20:53 |

| (443) | xàtì-lôt-ò | é-lé-x-e-lik |
| IMP.1PL-walk.IPVF | 3-PER-SEQ-3-be.cold |
| ‘Let’s walk while it’s still cool!’ | ED:08:19 |

| (444) | é-xì-rá | ńaifìè | xàŋ |
| 3-PFV-be | INF.go.PL | home.ABS |
| ‘Let’s go home’ (lit. ‘It’s become (time) to go home’) | BW:38:42 |

Table 6-18: Imperative marking in Eastern Nilotic languages

<table>
<thead>
<tr>
<th></th>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Teso-Turkana</th>
<th>Toposa</th>
</tr>
</thead>
<tbody>
<tr>
<td>imperative</td>
<td>te-, ite-</td>
<td>t(V)-</td>
<td>tV-</td>
<td>kl-</td>
<td>to-</td>
</tr>
<tr>
<td>Class I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-i, -e</td>
</tr>
<tr>
<td>Class II</td>
<td>i-</td>
<td>i-</td>
<td>tonal</td>
<td>k-</td>
<td>k-</td>
</tr>
<tr>
<td>pattern</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-i, -e</td>
</tr>
</tbody>
</table>
6.6.2 The prefix /alɪ-/., hortative marker

Lopit also has something which might be described as hortative, i.e. a softened command or exhortation (see Kroeger, 2005, p. 163). The prefix is /alɪ-/ and is used for Class I and Class II verbs as shown in (445) and (446) respectively. I have not observed the hortative in other EN languages.

(445)  álɪ-gíl rórió nànà l-e-fí lón
HORT-think.N words.ABS those.F.PL SBO-3-speak John.NOM
‘Consider what John said.’ (lit. ‘Think those words that John spoke’) AM:01:20:00

(446)  álɪ-ŋák rórió nànà l-i-jó fíjé
HORT-repeat.N words.ABS those.F.PL SBO-2SG-say 2SG.NOM
‘(Please) repeat those words that you said.’ DY:14:30

The same prefix is used for singular and plural. The plural form of (446) is given in (447).

(447)  álɪ-ŋák rórió nànà l-i-jó ítʃí
HORT-repeat.PFV words.ABS those.F.PL SBO-2SG-say 2PL.NOM
‘(Can you) repeat those words that you said.’ DY:14:50

The hortative can be used with subject (or agent) pronouns, as shown in the following.

(448)  álɪ-lwáx-á fíjé xíjó
HORT-help-IPFV 2SG.NOM people.ABS
‘You should help people.’ CS:01:02:25
Chapter 7  Basic Sentence Structure

7.1  Introduction

This chapter discusses how the simple sentence is structured. Lopit is a verb-initial language and the unmarked word order is VSO. There are a number of situations in which the word order changes. VOS is possible if the object is higher in the prominence hierarchy than the subject. SVO and OVS word orders are possible when the subject or object is placed in front of the verb for pragmatic reasons, such as focus. These topics are discussed in section 7.2.

The following section, 7.3, describes the way the grammatical relations are encoded in the language. The most important way of encoding grammatical relations is through case marking in the noun phrase. Lopit has a marked nominative case system. Word order and core participant marking on the verb are also used to a limited extent to encode some grammatical relations. Lopit also uses a number of prepositions to encode some non-core relations.

The nature of transitivity and valency in Lopit are discussed in section 7.4. Verbs can be intransitive or transitive. Transitive verbs can have two or three direct arguments. The number of direct arguments (or valency) of a verb can change. There are a number of valence increasing and decreasing alternations. These include the causative, dative/benefactive applicative, instrumental applicative, middle voice, de-transitivization and external possession.

Reflexives and reciprocals are not expressed morphologically in Lopit. They are usually expressed lexically in the semantics of the verb root or analytically, with the use of the word /kwan/, ‘self’, ‘body’. They are discussed in 7.5. Verbless and copula constructions are quite common in Lopit and section 7.6 discusses predicate nominals and related constructions. Interrogatives and negation are discussed in sections 7.7 and 7.8 respectively.

7.2  Word order of the simple sentence

7.2.1  VSO word order

Lopit is a verb-initial language and the unmarked word order is Verb-Subject-Object (or Verb-Agent-Patient). A typical example is as follows.
The subject is an obligatory part of the clause. However, there need not be an overt subject NP. Provided there is enough context, the pronominal subject marking can provide the reference to the subject. In the following examples, there is no pronoun (or other NP) in (451), but the third-person pronominal prefix [ó] on the verb [ódótò] refers to the subject NP from (450).

(450) ɛ-ɪbá  xàbò  ñàlé?
3-arrive.PFV  king.NOM  yesterday
‘The king arrived yesterday.’  DP:37:11

(451)  ó-dótò  mòîtè?
3-leave.IPVF  morning
‘He leaves tomorrow.’  DP:37:11

The prevalent word order in Eastern (and Southern) Nilotic is VSO (Dimmendaal, 2005, p. 73; Vossen, 1983, p. 183), although Bari is an exception in the Eastern Nilotic languages and has an SVO word order. However, Lopit can have other word orders. These include VOS, SVO and OVS and these will be discussed in the following sections.

### 7.2.2 Word order and the prominence hierarchy

VOS word order is usual (but not always obligatory) when the object is higher in prominence than the subject. Prominence has been studied by Aissen, who has examined a wide range of the functional/typological literature (2003). She concludes that prominence is best assessed using the scales of animacy and definiteness, which she describes as shown in (452) (2003, p. 436). She also notes that a distinction can be made at the top end of the definiteness scale between 1st and 2nd person, on the one hand, and 3rd person, on the other.

(452)  a. Animacy scale: Human > Animate > Inanimate
    b. Definiteness scale: Personal pronoun > Proper noun > Definite NP > Indefinite specific NP > Non-specific NP

It appears that the prominence hierarchy can, on this basis, be described in Lopit as given in (453). A similar hierarchy is observed in Turkana by Dimmendaal (1983b, p. 88).

(453)  1st & 2nd pronoun > 3rd pronoun > proper noun > human > animate > inanimate
Some examples to illustrate this VOS word order are shown in the next few examples. In example (454), the 1st pronoun object comes before the animate, non-human subject. In (455), the human noun object, [wûrê], ‘children.ABS’, comes in front of the animate, non-human subject. Note that case is realised by alternations in tone, specific to each noun (see section 4.4).

(454) ei-ŋó-rô        nàŋ        lóxôtórô
            3 > 1-sting-IPFV     1SG.ABS     bees.NOM
‘The bees are stinging me.’   DQ:40:14

(455) ó-ŋó-rô        wûrê        lóxôtórô
            3-sting-IPFV     children.ABS     bees.NOM
‘The bees are stinging the children.’   DQ:42:32

In the following example the pronoun object [iŋé], ‘her’, is placed before the human subject [lórèwá], ‘husband’.

(456) ɔ̀-rɔ́mɔ́-k        isó        iŋé        lórèwá        màṅà
            3-plough-DAT     FUT     3SG.ABS     husband.NOM     field.ABS
‘The husband will plough the field for her.’   AR:56:20

There does not appear to be any difference in the ranking between the 1st and 2nd person pronouns. In (457), the first person object follows the second person subject. This reflects the hierarchy outlined in (453) above.

(457) ei-ıtﬁ-rwè        ijé        nàŋ
            2 > 1-CAUS-be.annoyed     2SG.NOM     1SG.ABS
‘You annoy me.’   DP:28:57

It should be noted that the consultant did say that it was possible, but not usual, to have VSO word order for the examples given above.

7.2.3 Fronting and cleft constructions

Another variation from the unmarked word order can occur with clefting, whereby the subject or object is placed in front of the verb. The following examples relate to a woman who owns a field which is ploughed as part of the farming process. If someone has just noticed that the field has been ploughed and asks, “Who ploughed the field?”, the answer could be utterance (458), which is a pragmatically marked cleft construction with SVO word
order. When the verb is no longer in the clause-initial position, the subordinating marker /l-/
/ is prefixed to the verb.33

(458) lòréwá 1-ş-rómš-k ṭɛ mànà
husband.ABS SBO-3-plough-DAT 3SG.ABS field.ABS
‘(it was) The husband (who) ploughed the field for her.’ AR 59:20

The unmarked construction is shown in (459). Note that the case marking on the subject
/lorewa/ changes from nominative in (459) to absolutive in (458). This is in line with the
‘no case before the verb’ rule, which is discussed in section 7.3.5.

(459) 3-ş-rómš-k lòréwá ṭɛ mànà
3-plough-DAT husband.NOM 3SG.ABS field.ABS
‘The husband ploughed the field for her.’ AR 55:10

König has examined topicalisation in marked nominative languages. She suggests that the
SVO construction is likely to be a grammaticalisation of the bi-clausal construction involving
a relative clause. Her explanation is as follows (2008a, p. 272):

Originally, in focussed constructions, the focussed participant is presented in a bi-
clausal cleft construction with a preceding copula clause and the focussed participant
being a nominal predicate, and the subsequent predicate clause expressing the main
clause semantics. Due to semantic pressure, the bi-clausal construction was
grammaticalised to a mono-clausal construction, roughly as follows;

(460) Source structure: It is X who does Y X is being focussed
Target structure: X does Y

The copula clause-relative clause structure was reinterpreted as the new main clause
with verb-medial order, but the cases of the source structure have been retained.

Such a sequence might be possible in Lopit. It is illustrated in the sequence (461) to (463).
The copula clause-relative clause structure is shown in (462). The copula /in:an/ and the
relative pronoun /na/ are no longer present in the focussed construction in (463).

(461) 3-ó-xóŋ mólıŋ xīwàrò
3-bite.N baboon.NOM leopard.ABS
‘The baboon bit the leopard’ BT:35:34

33 The subordinating marker is discussed in section 9.1.3
Another example is given in (464) and (465), where the subject is /ŋode/, ‘blindness’. Here the subject of the second clause /ŋode/ is placed before the verb /bak/ to provide emphasis on his illiteracy and, presumably, contrast between the brother’s cleverness and his illiteracy. The unmarked form of the second clause is shown in (465). Note also that the object in (465) is placed directly after the verb and before the subject in line with the prominence hierarchy discussed in section 7.2.2.

(464) e-ɪrójɔ̀l írásì lelít ŋòdè l-ɛ-bák ɪnɛ̀
3-be.clever brother.NOM my.M blindness.ABS SBO-3-hit 3SG.ABS
‘My brother is clever but illiterate.’ (lit. ‘blindness hit him’)  CZ:59:20

(465) ɛ-ɓák ɪnɛ̀ ŋòdè
3-hit 3SG.ABS blindness.NOM
‘He is illiterate.’ (lit. ‘blindness hit him’)  CZ:01:00:04

The object of the verb can also be fronted. This is shown in (466) where the speaker is emphasizing that the wife saw cattle and not something else. The unmarked expression would be [ówóló náŋóruò xísùŋ], ‘the wife saw the cows’.

(466) xísùŋ l-o-wóló náŋóruò
cattle.ABS SBO-3-see.N wife.NOM
‘(it was) The cattle (that) the wife saw’.  AR:01:05:50

These kinds of constructions occur in other EN languages in the same situations (Dimmendaal, 2005, p. 75; Tucker & Bryan, 1966, p. 470).

### 7.2.4 Word order in clauses with auxiliary verbs

There are many clauses in Lopit which include an auxiliary verb (or a partially grammaticalised form of an auxiliary verb). The common auxiliary verbs are forms of the verbs /ɲa/, ‘not be’, used for negative constructions (see section 7.8.1) and /jɔ/, ‘say’, used for connectors such as /xɔjɔ/, ‘and then’, and /läjɔ/, ‘if’, ‘when’, (see sections 9.2.2.3 and 9.6.2.2 respectively). It appears that these words retain some of the verb syntactic
characteristics and influence the word order. This can be shown in the next two examples. The word order in (467) is VSO followed by an oblique. When the /xɔŋ/ construction is used in (468), the main verb [xɔxɔŋ], ‘bite’, is placed after the subject. The subject [mùñù] follows the auxiliary verb [xɔjɔ]. The word order is now AUX S V O and the object follows the subject and the main verb. Note that the subject [mùñù] maintains its nominative case marking. As discussed in section 7.3.5, nominative case marking is only observed after the verb. This supports the analysis of the /xɔŋ/ construction as being essentially verbal.

(467) x-ɔ-ɔŋ  mùñù  jì  dì = xɔjɔk
SEQ-3-bite  snake.NOM  3SG.ABS  on = leg.ABS
‘and the snake bit him on the leg.’ BC:01:08:28

(468) xɔjɔ  mùñù  x-ɔ-ɔŋ  jì  dì = xɔjɔk
and.then  snake.NOM  SEQ-3-bite  3SG.ABS  on = leg.ABS
‘and then the snake bit him on the leg.’ BC:01:14:30

The word order AUX S V appears to be standard for auxiliary verb constructions. It is used for negative constructions, as shown in (470), which is the negated form of (469). In (470), the utterance begins with the negative auxiliary /jìnà/ and the main verb /wù/, ‘go’, is placed after the subject, [nàŋ] (negation is discussed in section 7.8).

(469) jì  wù  nàŋ  à = Tòrít
1SG-go  1SG.NOM  to = Torit
‘I’m going to Torit.’ BT:55:11

(470) jìnà  nàŋ  1-á-wù  à = Tòrít
not.be  1SG.NOM  SBO-1SG-go  to = Torit
‘I’m not going to Torit.’ BU:05:54

This topic is discussed by Creissels et al. in relation to the Ateso language and the Surmic language, Tennet. They state that these languages have an alternation between VSO for positive clauses and SVO for negative clauses (2008, p. 136). They give the following examples from Tennet, which are similar to the Lopit examples in (469) and (470).

(471) Tennet  k-á-cín-i  anná  Lokúli  íyókò  nèkò
1-IPFV-see-1SG  1SG.NOM  Lokuli.ABS  now  DEM
‘I see Lokuli now.’ (Randal, 1998, p. 248)

(472) Tennet  írong  anná  k-á-cín-i  Lokúli  íyókò  nèkò
not  1SG.NOM  1-IPFV-see-1SG  Lokuli.ABS  now  DEM
‘I don’t see Lokuli now.’ (Randal, 1998, p. 248)
It seems to make more sense to regard the word order in both (472) and (470) as AUXSVO rather than SVO, given that the negator is an auxiliary. The pattern for Tennet is discussed by Randall (1998, p. 248) and by König (2008a, pp. 250–255). They both argue that the negative marker in Tennet is derived from a verb and historically the word order was Verb-Agent-Verb-Object. The situation appears to be similar for Lopit.

7.3 Grammatical relations and case systems

7.3.1 Introduction

Grammatical relations are equivalent sets of arguments, treated in the same way by some construction in a language. A grammatical relation can be regarded as the “syntactic relation that an argument bears to a specific construction or rule” (Bickel, 2001, p. 402). Thus, for example, a particular grammatical relation is assigned the same case in a language or triggers the same kind of agreement. Arguments, it turn, are defined by both their role (or relation to the predicate, as agent, theme etc.) and their referential type (as animate, speaker, topic etc.) (Bickel, 2001, p. 402). Languages can select their grammatical relations on the basis of role or reference properties or by combining these two kinds of properties. A distinction is usually made be core and non-core grammatical roles. Core roles are those of subject, agent and object. Non-core grammatical roles include such roles as locative, allative and instrument adjuncts.

A somewhat similar approach is adopted by Heath, who states that one of the main challenges facing the grammar in a language is “how to indicate how each NP fits into the argument structure of a predicator”, i.e. how the grammatical relations are encoded into the clause. He states that the solutions to this include “fixed linear order, case-marking of NPs and agreement morphology” (2004, p. 68).

In summary, the grammatical role (or syntactic function) in languages can be encoded in the clause in three main ways. These are shown in Table 7-1. In relation to the strategy of morphological marking on the noun phrase, Andrews distinguishes between inflectional marking and the use of a “morphological autonomous element, such as a clitic or adposition” (2007b, p. 141). This distinction is utilised here because Lopit has both forms of marking.

This section will examine the various ways in which grammatical relations are encoded in Lopit and it follows the order shown in Table 7-1. Lopit has a case-system with two cases, nominative (marked) and absolutive (or accusative). These cases are encoded by tonal pattern (see 4.4). Lopit uses a range of subject and object marking on the verb and also uses some adpositions to encode non-core participants.
Table 7-1: Strategies for coding syntactic functions

1. Word order and arrangement
2. Participant reference marking
3. Marking on the noun phrase
   (a) particle or adposition marking in the noun phrase
   (b) inflectional marking on the noun phrase

This is in general agreement with other Nilotic languages. Participant reference marking is common in African languages. Subject marking as verbal prefixes is very common and object marking is also widespread. Often there are syncretic forms of pronominal subject-object marking (Creissels et al., 2008, p. 92). Such marking is found in most Eastern Nilotic languages, as discussed in section 5.3.

Case is uncommon in African languages. Less than ten per cent of the (roughly) 2000 languages in Africa have grammaticalised case and around two-thirds of the case languages belong to the marked-nominative type (König, 2008b, p. 251). Most of these languages are found in Eastern Africa and belong to the Afroasiatic or the Nilo-Saharan phyla. König states that most Eastern Nilotic languages, including Maa, Turkana, Teso are marked nominative (2008b, p. 271).

Dimmendaal summarizes the grammatical relations in the Nilotic and Surmic languages (of the Eastern Sudanic sub-group of Nilo-Saharan languages) by stating that they use a reduced case marking system (or no case marking) combined with an extensive system of valency changing suffixes on the verb (2010, p. 34). This description is appropriate for Lopit.

7.3.2 Word order and arrangement

Although Lopit can generally be described as a VSO language, the word order is not a consistent indicator of grammatical relations. As shown in section 7.2.3 above, VOS word order occurs when the object is higher in the prominence hierarchy than the subject. SVO and OVS word orders are possible with cleft constructions.

However, word order does encode some non-core grammatical functions in ditransitive verbs. This is illustrated in the next few examples using the verb /ifwot/, ‘fill’. The verb is marked with the instrumental suffix /-ri/ (see section 5.4.4). Examples (473) and (474) both contain the words [fëɖɛ̀], ‘gourd.ABS’, and [ɡɪ́làs], ‘glass.ABS’. These words have the same case marking (see section 7.3.5). It is the word order which enables the hearer to determine which is the instrument and which is the goal. The NP with the role of instrument is placed before the NP with the role of goal.
Participant reference marking

Lopit verbs have subject marking and object marking for discourse participants. These are discussed in detail in section 5.3 above. However, the subject/object marking in Lopit does not always distinguish grammatical roles clearly. As shown in Table 7-2, Lopit does not distinguish between the marking for 2SG and 1SG objects for 3SG subjects (i.e. /ɛɪ-/ in both cases). This contrasts with Maa and Turkana where these marking are different. With Turkana, for example, /ka-/ is used for marking the 3SG subject and 1SG object. This is a transparent marker where the /k-/ is an inverse marker and the /a-/ indicates first person marking. Thus, compared with these other EN languages, cross-referencing in Lopit has limited functionality in encoding grammatical relations.

<table>
<thead>
<tr>
<th>subject</th>
<th>object</th>
<th>Lopit</th>
<th>Maa</th>
<th>Turkana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>2SG</td>
<td>ai-</td>
<td>áá-</td>
<td>k-à-</td>
</tr>
<tr>
<td>2SG</td>
<td>1SG</td>
<td>cì-</td>
<td>ki-</td>
<td>k-ì-</td>
</tr>
<tr>
<td>3SG</td>
<td>1SG</td>
<td>cì-</td>
<td>áà-</td>
<td>k-à-</td>
</tr>
<tr>
<td>3SG</td>
<td>2SG</td>
<td>cì-</td>
<td>kì-</td>
<td>k-ì-</td>
</tr>
</tbody>
</table>

Using particles and adpositions

Particles and adpositions can be used to mark syntactic functions and can show the same possibilities as case systems (Dixon, 1994, p. 41). Prepositions appear to be used quite often in Lopit to encode oblique grammatical relations, but do not encode core ones.

Example (475) has a monotransitive construction using the preposition /tɛ/, ‘with’. The NP [fèdè iñà] has the semantic role of instrument and an oblique grammatical relation. The NP [xifójù] has the semantic role of theme and the grammatical relation of object.
The same meaning can be expressed in (476) with the ditransitive construction using the instrumental suffix /-ri/ (see section 7.4.1 for a discussion of transitivity). Here, the NP [fédé inà] has the same semantic role (instrument) but now has the grammatical relation of object. Note that there has also been a change in word order and the object [fédé] is now placed directly after the subject.

(476) a-mát-ári nàŋ fédé inà xifjóŋ
1SG-drink-INS 1SG.NOM gourd.ABS this.F water.ABS
'I drink water with this gourd.' AP:48:50

A second set of examples is given in (477) and (478) with the verb /ijab/,'tell'. In (477), the NP [nàŋ] has the semantic role of recipient and has an oblique grammatical role. Example (478) shows an alternative method of expression in which the (dative) suffix /-k/ is used to encode the grammatical relation of object on the NP [nàŋ], which still has the semantic role of recipient.

(477) e-ijab-a ìŋ ìkùdò dè = nàŋ
3-tell-IPFV 3SG.NOM story.ABS to = 1SG.ABS
'He told a story to me’ AH:42:27

(478) e-ijab-ak ìŋ nàŋ ìkùdò
3-tell-APPL 3SG.NOM 1SG.ABS story.ABS
'He told me a story’ AH:42:20

Thus, prepositions (and word order) are used to encode oblique grammatical relations in Lopit.

Noun affixes are also used in some EN languages. For Turkana, Dimmendaal (1983b, p. 264) describes the prefix na- which can be translated as ‘at’ or ‘to’ when used with the linking particle a (‘of’) as shown in (479) and (480). There are similar prefixes in Teso but I have not identified anything similar in Lopit.

(479) Turkana à na-mosìŋ à a-pay`
of at-rhino of one
‘from one rhino’ (Dimmendaal, 1983b, p. 265)
7.3.5 The case system in Lopit

Case-marking is used in Lopit as the one of the main means of indicating grammatical relations. Lopit has a marked nominative case system. Before discussing this case marking system in detail, I will give some background on case systems in general.

Case systems are generally distinguished with reference to three basic syntactic functions or “primitive relations” or “core syntactic relations” (Dixon, 1994, p. 6). These are S, the intransitive subject function, A, the transitive subject function and O, the transitive object function. There are several main ways in which these core relations can be aligned, as shown in Table 7.3.

Table 7-3: The main case systems

<table>
<thead>
<tr>
<th>case system</th>
<th>grouping of functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative/accusative</td>
<td>A \ S \ O</td>
</tr>
<tr>
<td></td>
<td>NOM unmarked \ ACC marked</td>
</tr>
<tr>
<td>ergative/absolutive</td>
<td>A \ O \ S</td>
</tr>
<tr>
<td></td>
<td>ERG marked \ ABS unmarked</td>
</tr>
<tr>
<td>marked nominative</td>
<td>A \ S \ O</td>
</tr>
<tr>
<td></td>
<td>NOM marked \ ACC/ABS unmarked</td>
</tr>
<tr>
<td>marked absolutive</td>
<td>A \ O \ S</td>
</tr>
<tr>
<td></td>
<td>ERG unmarked \ ABS marked</td>
</tr>
</tbody>
</table>

The two most common types of case systems are the nominative/accusative and the ergative/absolutive systems. In these languages, overt marking is used for the O argument.

(480) Turkana na-mosiuŋɔ na-mugè-ik nugú
at-rhino grey these
‘to these grey rhinos’ (Dimmendaal, 1983b, p. 265)

34 Note that some use the term P, patient, instead of O, object (Blake, 1994; Dixon, 1994)
in nominative-accusative languages and for the A argument in ergative-absolutive languages. This tendency is reflected in Greenberg's Universal 38:

"Where there is a case system, the only case which ever has zero allomorphs is the one which includes among its meanings that of subject of the intransitive verb."

(Greenberg, 1963, p. 113)

There are exceptions to this generalisation. In marked absolutive systems, there is overt marking on S and O. In marked nominative case systems, there is overt coding on S and A. A marked nominative case system is one in which there are at least two cases, an absolutive (or accusative) covering the Object, and a nominative covering the Subject and Agent (as occurs with nominative/accusative languages). The marked nominative system is distinguished from other case systems in that the absolutive (or accusative) is the unmarked form and covers such functions as citation form, oblique and possessee as well as object. The nominative is the morphologically marked form.

The selection of the term to describe the unmarked form is rather difficult. The term absolute is used in ergative languages to mark the Subject of an intransitive verb (also a core relation). Thus, the term absolutive (in reference to marked nominative languages) is not preferred by some. König states that “In East Africa a somewhat confusing terminology has been used: The morphologically unmarked form is called absolute or even absolutive, as it is called in ergative languages” (2006, p. 659). These linguists prefer to use the term accusative (e.g. König (2008a)). However, this is not entirely suitable since the unmarked form is used for some grammatical relations that are not normally marked by the accusative case (such as the core relation of Subject when it occurs before the verb and the citation form). I use the term ‘absolutive’ in this study on the basis that it can be regarded as a pattern of case marking where the case is not marked.\footnote{Note that some grammars of other Eastern Nilotic languages use absolutive (Dimmendaal, 1983b) or absolute (Barasa, 2017). Satzinger uses the terms “nominative-absolutive alignment, or Marked Nominative system” in describing Afro-Asiatic marked nominative languages (2018, p. 12)}

Marked nominative languages are rather rare and are found in Africa, North America and the Pacific. In North America, they are found in the Yuman languages along the Pacific coast from California to Mexico and inland to Arizona. In the Pacific, they are found in the Solomon Islands (e.g. Savosavo) and New Caledonia (e.g. Ajië) (Handschuh, 2014). In Africa, there are some Berber languages (Afroasiatic) and some Niger-Congo languages in Angola which are marked nominative (König, 2008a), but most are found in the region of Sudan,
South Sudan, Ethiopia, Uganda, Kenya and Somalia, and particularly in the border areas of these countries. They come from both the Nilo-Saharan and the Afroasiatic phyla. In some cases, this may be due to innovations in the common ancestor of particular language groups. For example, Dimmendaal (2007) has examined the origin of marked nominative systems in Eastern Sudanic languages\(^{36}\) of the Nilo-Saharan phylum, and proposes the following process.

- **Differential object marking**\(^{37}\) constituted the historical basis for the morphologically unmarked form which objects take in Nilotic and Surmic.
- Post-verbal agent-marking in transitive predications originated from an extension of instrumental and genitive case marking, which in turn resulted in (split) ergativity in Nilotic and Surmic.
- Marked nominative systems resulted from an extension of (ergative) post-verbal case markers for agents in transitive constructions to subjects in intransitive constructions in Nilotic and Surmic.

This proposed process supports Dixon’s suggestion that marked nominative could be called an “extended ergative” system (1994, p. 64).

I will now examine how Lopit encodes its range of grammatical functions through its case system. I will examine the functions of subject, object, indirect object, subject of nominal predication, predicate nominal of both nonverbal and verbal copulas, subject of existential and locational predication, subject of dependent clauses and the subject in valency decreasing operations. These are the functions examined by König (2008a) and by Handschuh (2014). The marking of nominative and absolutive case is made through tonal patterns. These were described in section 4.4.

The marking of the subject of intransitive and transitive verbs and of objects are given in the following examples. The subject of an intransitive verb ([ŋé] in (481)) and the subject of a transitive verb ([náŋ] in (482)) are marked in the nominative case. The direct object ([ŋé] in (482)) is marked with the absolutive case.

\[(481)\]  
\[
\begin{array}{ll}
\text{é-ířib-о} & \text{[ŋé]} \\
3\text{-fight-IPFV} & 3\text{SG.NOM} \\
\end{array}
\]

‘He is fighting.’ AP:18:02

\[^{36}\] The Eastern Sudanic language group includes the Surmic and Nilotic language groups.

\[^{37}\] Differential object marking is where the accusative case is expressed either by way of case-marking clitic or suffix (sometimes involving tone), or it is morphologically unmarked (Dimmendaal, 2007).
Objects of ditransitive verbs (e.g. recipients, beneficiaries) take absolutive (zero) case marking, as shown with the word \[ijè\], ‘you’, in (483).

(483) á-íṣó náŋ  ijè bùk
1SG-give 1SG.NOM 2SG.ABS book.ABS
‘I give you the book.’ AE:02:08:30

The subject of nominal predication is illustrated in (484) and, in this example, the subject [ɪ́ɲɛ́], ‘he/she’, takes the nominative case.

(484) á-rá ɪɲɛ́ xábó
3-be 3SG.NOM chief.ABS
‘He/she is the chief.’ BT:10:16

The predicate nominals of both nonverbal and verbal copula clauses take the absolutive. Example (485) is a nonverbal copula and is used to introduce the [xábó], ‘chief’. (Predicate nominals and related constructions are discussed in section 7.6.)

(485) ɪlːɛ́ŋ xábó
this.M.COP chief.ABS
‘This is the chief.’ BT:02:03

The word order can also be reversed (486) and the tonal pattern (case-marking) stays the same. The nominal predicate takes the absolutive case. This utterance can be used when stating where someone is located.

(486) xábó ɪlːɛ́ŋ
chief.ABS this.M.COP
‘This is the chief (the chief is here).’ BT:02:03

An example of a verbal copula is given in (487). The nominal predicate ([lòrèwà], ‘husband’) takes the absolutive case.

(487) árá xábó lòrèwà lití
3-be chief.NOM husband.ABS my.M.ABS
‘The chief is my husband.’ BT:15:50

The subject of positive existential predication is examined next. Handschuh defines an existential construction as a statement about the existence of an entity (2014, p. 75). In
Lopit, if an existential is encoded with a copula verb (usually /wːon/, ‘exist’), there is no expressed subject. Thus, (488) could be literally translated as ‘it exists tea in the cup’.

(488) ó-wːón jāi dē=kùbaįjá
3-exist tea.ABS in = cup.ABS
‘There is tea in the cup.’ DH:01:07:27

If existentials are encoded as predicate nominals, then the entity (i.e. [mòlòŋ], ‘baboon’, in (489)) is encoded with the absolutive case.

(489) nà mòlòŋ l-ó-wːòn dē=jàni
that.F.COP baboon.ABS SBO-3-be in = tree.ABS
‘There is a baboon (which is) in the tree.’ BT:39:01

In a locational predication, the existence of an entity is presupposed and the entity is categorised with respect to its location in space. The subject in (490), [mòlòŋ], ‘baboon’, takes the nominative case when the copula verb /wːon/ is used. This contrasts with the existential predication in (488) where there is no expressed subject with the verb /wːon/. This is because the existence of the entity (/jāi/, ‘tea’, in (488)) is not presupposed in the existential predication.

(490) ó-wːón mòlòŋ dē=jàni
3-be baboon.NOM in = tree.ABS
‘The baboon is in the tree.’ BT:38:14

The subjects of dependent clauses in Lopit, such as relative, adverbial and complement clauses, all take the nominative case (these clauses are discussed in sections 9.4 to 9.7. Example (491) shows a relative clause whose subject [xíwàrój], ‘leopard’, takes the nominative case.

(491) mòlòŋ inːaż̩ nà l-ó-xón xíwàrój
baboon.ABS this.F.COP REL.F SBO-3-bit.N leopard.NOM
‘This is the baboon that the leopard bit.’ BT:29:50

The subject of valency-decreasing operations was also examined for Lopit. One example of valency decreasing operation is the use of the middle voice (see section 7.4.2). (492) is an example of a verb in the active voice with two arguments.

(492) é-iríb ñé xàjì
3-collapse.PFV 3SG.NOM house.ABS
‘He/she collapsed (destroyed) the house.’ AZ:13:07
In (493), there has been a decrease in the valency of the verb. The subject of this verb [xáfí], ‘house’, is now in the nominative case.

(493) è-írib-ò xáfí
3-collapse.PFV-MID house.NOM
‘The house collapsed.’ AZ:10:28

In the Dorik variety of Lopit, there is no special case-form to mark attributive possessors. The absolutive form is used together with the possession marker /na/ ‘of.F’, or /lɛ/, ‘of.M’, after the possessee and before the possessor (494). The possessor takes the absolutive case, as seen for [xáláŋ], ‘man’ in this example.

(494) éí-wóló íjɔxɔí xàjí nà xáláŋ ìlà
1PL- see.N 1PL.NOM house.ABS of.F man.ABS that.M
‘We see the man’s house.’ BT43:21

As discussed in 7.2.3, the subject can be placed in front of the verb in certain discourse situations. This is discussed in relation to the next two examples. The unmarked VSO situation is shown in (495), where the subject [xítò], ‘child’, takes the nominative case.

(495) ò-wóló xítò ìkúdò
3-see.PFV child.NOM squirrel.ABS
‘The child saw the squirrel.’ CO:01:08:25

Example (496) shows a clause in which the subject is placed before the verb. In this (contrastive focus) construction, the speaker is emphasising that it was the child (and not somebody else) who saw the squirrel. Here, the subject [xítò] is now marked with the absolutive case. Thus, as is described by König, there is “no case before the verb” (2006). This also occurs in the other VSO marked nominative languages.

(496) xítò l-ò-wóló ìkúdò
child.ABS SBO-3-see.PFV squirrel.ABS
‘(It was) The child (who) saw the squirrel.’ CO:01:09:19

Case marking in Lopit is similar to the other Eastern Nilotic languages which have been reported by both König (2008a) and Handschuh (2014). A comparison between Lopit and other Eastern Nilotic languages is shown in Table 7-4. It is also clear that the absolutive is the unmarked case in Lopit. Note also that nouns in citation form are in the absolutive case.
Table 7-4: Functions covered by NOM and ABS in Lopit and other EN languages

<table>
<thead>
<tr>
<th>language</th>
<th>citation</th>
<th>O nominal predicate</th>
<th>Subject copula clause</th>
<th>Subject post V</th>
<th>Subject pre V</th>
<th>Subject possessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maa</td>
<td>ABS</td>
<td>ABS</td>
<td>ABS</td>
<td>NOM</td>
<td>ABS</td>
<td>ABS</td>
</tr>
<tr>
<td>Turkana</td>
<td>ABS</td>
<td>ABS</td>
<td>NOM</td>
<td>NOM</td>
<td>ABS</td>
<td>GEN</td>
</tr>
<tr>
<td>Toposa</td>
<td>ABS</td>
<td>ABS</td>
<td>NOM</td>
<td>NOM</td>
<td>ABS</td>
<td>?</td>
</tr>
<tr>
<td>Lopit</td>
<td>ABS</td>
<td>ABS</td>
<td>NOM</td>
<td>NOM</td>
<td>ABS</td>
<td>ABS</td>
</tr>
</tbody>
</table>

In Lopit, there are constructions in which there is nominative case marking on the subject before the main verb. This occurs with auxiliary verb constructions. The word order in auxiliary verb constructions is discussed in section 7.2.4. An example of change in word order with a narrative construction involving the word /xɔɟɔ/, ‘and then’, is illustrated in (497) and (498). In (497), the first clause is VSO [ɪlɛ́mák mónömíjí xìjò], ‘The leaders tell the people’.

(497) ē- ɪlɛ́má-k mónömíjí xìjò e-igũrò bálú
3-tell-DAT leaders.NOM people.ABS 3-brew beer.ABS

‘The leaders tell the people to make beer.’ BA:58:19

In a narrative situation, (497) can be expressed as (498). Here, the subject [mónömíjí], ‘the leaders.NOM’, is placed in front of the verb /ilemak/ and still had nominative case marking. This verb, [xɔilɛ́mák], now has the sequential prefix /x-. Note that, as discussed in 9.2.2.2, the pronominal prefix changes from [ɛ] to [ɔ]. As discussed in section 9.2.2.3, the word /xɔjɔ/ is probably a grammaticalised form of the verb /x-ɔ-jɔ/ ‘SEQ-3-say’, ‘they say’.

(498) xɔjɔ mónömíjí x-ɔ-ilɛ́má-k xìjò ē-igũrò bálú
and.then leaders.NOM SEQ-3-tell-DAT people.ABS 3-brew beer.ABS

‘And then the leaders tell the people to make beer.’ BA:58:43

Thus, there are situations where the subject is placed before the (main) verb and maintains its nominative case marking. It appears that, in these cases, the subject follows another (albeit auxiliary) verb and appears to count as 'post-verbal' for the purposes of case-marking.

7.4 Transitivity and valency

7.4.1 Transitivity and valence changing operations

Verbs in Lopit can be transitive and/or intransitive. They can have one, two or three direct arguments. The following shows the intransitive verb /jɔ/, ‘cry’.
The next is a mono-transitive construction with the verb /xoɲ/, ‘bite’.

(500) ð-xóŋ  múnù  xító
   3-bite.N  snake.NOM  child.ABS
‘The snake bit the child.’   BD:03:19

A ditransitive construction is shown in (501) with the verb /iso/, ‘give’.

(501) a-ísó  náŋ  ijè  bûk
   1SG-give.N  1SG.NOM  2SG.ABS  book.ABS
‘I gave you the book.’   AE:02:08:25

The verb /iso/ can also be used in a mono-transitive construction without any change in morphology. In (502), the verb has only one object and the recipient [nàŋ], ‘me’, is now in an oblique grammatical relation.

(502) i-ísó  ijé  bûk  dè=nàŋ
   2-give.N  2SG.NOM  book.ABS  to=1SG.ABS
‘You gave the book to me.’   AJ14:04

Similarly, some verbs can alternate between intransitive and mono-transitive without any change in morphology. The following two examples contain the verb /daxa/, ‘eat’. This kind of alternation probably only applies to Class Ia verbs. For other verbs, there is a change in morphology in changing from transitive to intransitive. This is called detransitivization and is discussed in section 7.4.2.38

(503) á-lá-dáxá  náŋ  l-ò-lót- ü  lóxídŋŋ
   1SG-PER-eat.IPfv  1SG.NOM  SBO-3-go-VEN  Lohidong.NOM
‘I was still eating when Lohodong came.’   EB:05:25

(504) á-lá-dáxà  náŋ  jísíjá
   1SG-PER-eat.N  1SG.NOM  food.ABS
‘I’m still eating food.’   DY:36:32

---

38 Note that it is difficult to establish that the verb in (503) is intransitive, since the people have to be eating something. However, whatever was being eaten does not appear to be relevant.
However, for many verbs in Lopit, changes in transitivity involve changes in morphology. These are usually in the form of affixes. The valence increasing alternations include the causative, /-ɪɪ-/ \( \text{IT} \), the dative, /-Vk/ \( \text{D} \), and the instrumental, /-ri/ \( \text{I} \). The morphology of these affixes is discussed in more detail in section 5.4. In this section, I give some examples of their use in valence increasing operations. Valence decreasing alternations include detransitivization and the middle voice. These are discussed in sections 7.4.2 and 7.4.3.

The use of the causative marker /-ɪɪ-/ prefixed to the verb root is a valence increasing construction as shown in the following examples with the Class I verb /-ɪɪ-/ 'become lost'. The causative prefix changes the verb from intransitive to transitive.

\[
\begin{array}{llll}
\text{(505)} & \text{á-ɪɪ-ɛ́-f} & \text{náŋ} & \text{dè = tòtòr} \\
& 1\text{S}G-\text{become.lost-IT} & 1\text{SG.NOM} & \text{in} = \text{forest.ABS} \\
& \text{‘I got lost in the forest.’} & \text{CG:08:04} \\
\end{array}
\]

\[
\begin{array}{llll}
\text{(506)} & \text{e-ɪɪ-ɛ́-f} & \text{ɪ́ɲ́} & \text{bùk} & \text{nàpí} \\
& 3\text{-CAUS-become.lost-IT} & 3\text{SG.NOM} & \text{book.ABS} & \text{his.F.ABS} \\
& \text{‘He lost his book (i.e. mislaid it).’} & \text{CG:0611} \\
\end{array}
\]

Sometimes, the extra argument with the use of the causative is not expressed. In the pair of examples in (507) and (508), the causative prefix leads to a change in meaning in the verb /-ɪɪ-/ 'work, fix, repair'. As the consultant explained, “[aɪɪɪɛ́m náŋ] means you got someone to fix it and [aɪɛ́m náŋ] means you fix it yourself (AZ:01:19)”. The argument representing the person who repaired the car in (508) is not expressed.

\[
\begin{array}{llll}
\text{(507)} & \text{a-ɪɪɛ́-m} & \text{náŋ} & \text{kèbù} & \text{nàtì} \\
& 1\text{SG-PFV.work} & 1\text{SG.NOM} & \text{plough.ABS} & \text{my.F.ABS} \\
& \text{‘I repaired my plough.’} & \text{AC:00:49:00} \\
\end{array}
\]

\[
\begin{array}{llll}
\text{(508)} & \text{a-ɪɪɛ́-m} & \text{náŋ} & \text{tòròmìlè} \\
& 1\text{SG-PFV.CAUSS-work} & 1\text{SG.NOM} & \text{car.ABS} \\
& \text{‘I had the car repaired.’} & \text{AZ:01:31} \\
\end{array}
\]

In Lopit, the dative suffix /-(V)k/ is often used in valence increasing operations. The verb /-ijab/, ‘tell’ can be used in utterances like (509) and (510), where it has two arguments.

\[
\begin{array}{llll}
\text{(509)} & \text{e-ɪjáb-à} & \text{ɪɲé} & \text{ikúdò} \\
& 3\text{-tell-IPFV} & 3\text{SG.NOM} & \text{story} \\
& \text{‘He told a story.’} & \text{AH:40:04} \\
\end{array}
\]
Example (511) is formed with the suffix /-k/ added to the verb. This can happen when a second object argument is added to (509) or when the oblique prepositional phrase [dè nàŋ], ‘to me’, in (510) is changed to the object noun phrase [nàŋ], ‘me’. The noun phrase [nàŋ] is located immediately after the subject. This is a valency increasing operation and (511) can be described as an applicative construction.

Although the dative suffix is mostly used with a change from monotransitive to ditransitive, it can be used with some verbs with a change from intransitive to transitive. This is illustrated with the Class I verb [icèf], ‘dress’, ‘get dressed’, ‘put on’, in the following two examples.

The suffix /-ri/ is used to express the semantic role of instrument on the verb. It increases the valence of the verb as illustrated with the verb /iwus/, ‘drink’ in (514) and (515). In this applicative construction, the noun phrase realising the instrumental role ([kùbajà in:àn], ‘this cup’) is placed immediately after the subject and the preposition (/te/, ‘with’) is dropped.
With questions, the word order changes. As shown in (516), the pronoun realising the instrument role, \[\text{[nò]}, \text{‘what’}\], is placed after the subject, \[\text{[jé]}, \text{‘[jé]’}\], and the object, \[\text{[bil]}, \text{‘[bil]’}\]. Interrogatives are discussed in section 7.7.

(516) \text{x-i-lúm-órì} \text{fjé} \text{bil} \text{nò?}
Q.2SG-hit.N-INS 2SG.NOM Bill what
\text{‘What did you hit Bill with?’} BL:45:36

7.4.2 Detransitivization

There are verbs in Lopit that are unmarked in the transitive and marked in the intransitive. The suffix /-a, -o/ is added to the neutral, unmarked form of the verb. This can be described as a detransitivizing process or, more specifically, as a deobjectifying process. That is, the verb is marked when there is no object. The marker is glossed as DETR, detransitive. Some examples are given for the verbs /ixen/, \text{‘read’}; /jir/, \text{‘drive’} and /ŋɔr/, \text{‘shoot, sting’}. Examples (517) to (522) comprise three pairs in which the second of each pair has the detransitivized construction.

(517) \text{x-i-ixên} \text{fjé} \text{bùxí}
Q.2-read.N 2SG.NOM books.ABS
\text{‘Do you read books?} CP:23:15

(518) \text{x-i-ixên-à} \text{fjé}
Q.2-read-DETR 2SG.NOM
\text{‘Do you read? (Can you read?)} CP:23:19

(519) \text{x-i-jír} \text{fjë} \text{toromile}
Q.2-drive.N 2SG.NOM car.ABS
\text{‘Do (can) you drive a car?} CP:20:55

(520) \text{x-i-jír-á} \text{fjë}
Q.2-drive-DETR 2SG.NOM
\text{Do (can) you drive?} CP:22:57

(521) \text{ŋ-ŋɔ́r} \text{lóxótórɔ́} \text{wòrɛ́}
3-sting.N bees.NOM children.ABS
\text{‘Bees sting children.’} DQ:48:34
The verbs in examples (517) to (522) are Class IIa and Class Ia verbs (See section 5.2.1). They have the root structure (i)CVC and the examples in (517), (519) and (521) are all in the neutral form, which is the unmarked root. Semantically, they are of a generic or habitual nature. They are also activity verbs. They indicate the ability or propensity of the agent (the reader, driver, bees) to carry out the action of the verb. The de-transitivized (or de-objectivized) forms (in (518), (520) and (522)) follow on from this in that they also express the generic or habitual sense of the verb. It could be that detransitivization only occurs with verbs in the neutral aspect.

The process of deobjectification is also observed with infinitives, as shown in (523) and (524) using similar utterances to (519) and (520) above.

(523) x-i-íxédér íjé xí-jír tòròmílè
Q-2SG-be.able 2SG.NOM INF-drive.N car
‘Can you drive a car?’ CJ:19:15

(524) x-i-íxédér íjé xí-jír-à
Q-2SG-be.able 2SG.NOM INF-drive-DETR
‘Can you drive?’ CJ:20:22

There are some verbs which can change from transitive to intransitive without any change in morphology. The verb /daxa/, ‘eat’ is ambitransitive, similar to the English verb ‘eat’. This verb was discussed in relation to examples (503) and (504).

(525) á-dáxá náŋ mòrší?
1SG-eat.N 1SG.NOM beans.ABS
‘I eat beans.’ AJ:09:06

(526) á-dáxá náŋ
1SG-eat.N 1SG.NOM
‘I eat.’ BQ:01:02:51

It should be noted that /daxa/ is a Class Ia verb with a root structure CVCV. In the unmarked form it already has a root final /a/. It is therefore not unexpected that this kind of verb does not differentiate between transitive and intransitive.

The term ‘deobjective’ has been used here although there appears to be no standard term for this construction (Hasselmath & Müller-Bardey, 2004, p. 3). Deobjective morphemes are
not common but are found in some Baltic and Slavic languages and in other languages including Georgian, Chuvash (Turkic), Tartar (Turkic), and Udmurt (Uralic) (Geniusiene, 1987, p. 314). Geniusiene calls them absolutive reflexives and calls the morpheme the reflexive marker, RM. This is because, in the languages she has studied, they are the same as the reflexive marker. The following are examples from Latvian and are quite similar to the Lopit examples in (517) to (522) above. Note, that, in Lopit, reflexives and reciprocals are mostly expressed lexically and analytically. However, as discussed in section 7.5.1, the detransitivizing construction can be used in some reflexive constructions.

(527) Latvian  šu-o  kandžioja  viak-us
dog-NOM bites child-ACC.PL
‘The dog bites the children.’ (Geniusiene, 1987, p. 84)

(528) Latvian  šu-o  kandžioja-si
dog-NOM bites-RM
The dog bites.’ (Geniusiene, 1987, p. 84)

She describes the verb kandžioja-si as an absolute reflexive verb and says that the reflexive marker (RM) -si, “has a structural function, but no semantic function”. “They [absolute reflexive verbs] may be regarded as pseudo-reflexives” (Geniusiene, 1987, p. 75).

7.4.3 Middle voice

Middle alternations have been described as detransitivizations which are someway between active and passive (T. E. Payne, 1997, p. 216). Thus the verb ‘to break’ can be used in the active (‘the workers broke the vase’), the passive (‘the vase was broken by the workers’) or the middle, (‘the vase broke’). The middle construction is one that expresses a semantically transitive situation in terms of a process undergone by a patient (i.e. the vase breaking) rather than an action carried out by an agent. This description is similar to that of Arce-Arenales et al, who use the term middle diathesis to describe “sentences with syntactically active subjects which are semantically affected by the action of the verb” (1994, p. 1).

Haspelmath approaches this somewhat different terminology. He uses the term inchoative verb and defines it semantically in relation to a semantically causative verb. The causative verb meaning “includes an agent participant who causes the situation” and the inchoative verb meaning “excludes a causative agent and presents the situation as occurring spontaneously” (1993, p. 90). Thus, using the examples above, he calls the clause ‘the workers broke the vase’ a causative construction and ‘the vase broke’ an inchoative one (but this is not how I use the term "inchoative" in this work.)

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Croft takes this further and describes the inchoative (‘the vase broke’) as sitting between the causative (‘the workers broke the vase’) and the stative (‘the vase is broken’) (1994, p. 102).

A methodology for comparing the active-middle-passive spectrum with that of causative-inchoative-stative has been proposed by Croft and is shown in Table 7-5. Croft states that the different grammatical constructions are all manifestations of the same types of events.

Table 7-5: Correlation of event terms for different constructions (Croft (1994, p. 102))

<table>
<thead>
<tr>
<th>verb form</th>
<th>event views</th>
</tr>
</thead>
<tbody>
<tr>
<td>derived</td>
<td>causative</td>
</tr>
<tr>
<td>simple</td>
<td>transitive</td>
</tr>
<tr>
<td>basic voice</td>
<td>active</td>
</tr>
<tr>
<td>examples</td>
<td>John broke</td>
</tr>
</tbody>
</table>

Lopit distinguishes the active and middle voice and I use the alternation active/middle here rather than the other options in Table 7-5. I do not use the term causative/inchoative alternation because there are verbs which are not derived causatives in the active role and because I use the term inchoative in a broader sense (see section 6.4.4 on the inchoative). I do not use the terms transitive/intransitive because this has broader applications in Lopit.

It should be noted that Lopit does not have a passive nor does it use adjectives or stative verbs in the sense described in the final column in Table 7-5. This is discussed section 7.4.4.

(529) is an example of a transitive (and active) construction where the subject ([ィンɛ̂], ‘he’) and the object ([ンァジ], ‘house.ABS’) are identified and marked with the nominative and absolutive case respectively. The verb (/ιりぼ/, ‘collapse’, ‘break-up’, ‘destroy’) is in the transitive form. It does not use the causative prefix (/ιτ-) but the verb is causative in the semantic sense.

(529) e-ιりぼ  ィンɛ̂  ヌォジ
3-collapse.PFV  3SG.NOM  house.ABS
‘He wrecked the house.’  AZ:13:07

If, however, someone is describing what happened to a house after a landslide in the mountains, they might use (530). In this utterance, the suffix /-ο/ has been added and the verb now only has one argument, the subject [Χァジ], ‘house.NOM’.39 There has been a decrease in valency. The subject [Χァジ] of the intransitive verb [ιりぼ] has a similar semantic

39 Other changes occur in the marking of the perfective and these are discussed in relation to (541) and (542) below.
role to the patient of the verb [e'írëb] in (529). This can be regarded as an example of middle voice and the suffix /-o/ is described as the middle voice marker (MI). There is no implication of an unexpressed agentive force.

As discussed above, Haspelmath and Croft would describe the verb [e'írëbò] as inchoative in the semantic sense, in that example (530) “excludes a causative agent and presents the situation as occurring spontaneously” (Haspelmath, 1993, p. 90). It could also be described as a decausative (Creissels et al., 2008, p. 314). The use of the middle voice here reflects the description of Arce-Arenales et al, in that the “syntactically active subject” of the verb (i.e. [xáj], ‘house’) is “semantically affected by the action” of the verb (/írib/, ‘collapse’) (1994, p. 1).

(531) and (532) provide an additional example of the valency change from transitive to middle voice. The verb in (531) has two arguments, the agent, [íñë], and the patient, [gílás], ‘glass’. The verb in (532) has only one argument, the subject, [gílás náñí], ‘his glass’. For the verb /bor/, ‘break, shatter’, the middle voice suffix is /-a/.

The suffixes used for the middle voice, /-a/, /-o/, are the same as those used to mark the imperfective (see section 6.4.2). This makes it somewhat difficult to distinguish the two on morphological grounds. However, usually there is enough context to avoid ambiguity (e.g. the nominative marked NP in a middle voice construction is not an agent). In addition, in some cases, there are tonal differences. The active imperfective can have a high or low tone on the suffix, whereas the middle imperfective always appears to have a high tone. The paradigms for the middle voice aspects are shown in Table 7-6, together with the paradigms for the imperfective. Note that, as discussed in section 6.4.2, the tone on the imperfective suffix, /-a, -o/, is not shown for sub-class (a) verbs since it does not appear to be determined by the aspect.
The middle voice shows aspectual contrasts, i.e. an imperfective and perfective form. The paradigm for the perfective for active and middle voice is also shown in Table 7-6. It is seen from this table that these are portmanteau forms as one cannot clearly differentiate the forms for the active, middle, imperfective, perfective and sub-class. (Note that more research is required to fully understand this area). Although, as discussed above, the imperfective active and imperfective middle are similar, there are differences in the marking of the perfective. Class Ia and Class Ila verbs follow the perfective form of Class Ib verbs (i.e. CVCV) for the middle perfective, rather than use the forms they have in the active (where the perfective forms are (x)i-CVC for Class Ia and iCVC for Class Ila).

Table 7-6: Imperfective and perfective forms of the middle voice

<table>
<thead>
<tr>
<th>sub-class</th>
<th>imperfective</th>
<th>perfective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>active</td>
<td>middle</td>
</tr>
<tr>
<td>Ia</td>
<td>CVC-V</td>
<td>CVC-V</td>
</tr>
<tr>
<td>Ib</td>
<td>CVCV</td>
<td>CVCV</td>
</tr>
<tr>
<td>Ila</td>
<td>iCVC-V</td>
<td>iCVC-V</td>
</tr>
<tr>
<td>Iib</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

For Class Ia verbs, the middle imperfective is the same as the active imperfective. In the middle perfective, the prefix /(x)i-/ is not used and, instead, the tone on the first vowel in the stem changes from H to L and the suffix vowel ([à] or [ô]) is marked with a low tone. Some examples for the Class Ia verb /bak/, ‘hit’, are shown in (533) and (534).

(533) ɛ́-báxá xımèrí
3-hit.IPFV.MI bell.NOM
‘The bell is ringing (rings).’ BQ:41:02

(534) ɛ̀-bàxà xımèrí
3-hit.PFV.MI bell.NOM
‘The bell rang (is no longer ringing).’ BQ:41:18

For Class Ib verbs, the active and middle voice have the same form in the imperfective as shown in (535) and (536) for the verb /pʊra/, ‘bake’ (see section 6.4.2.2 for aspect marking of Class Ib verbs).

(535) á-pùrá nàŋ ímóné?
1SG-bake.IPFV 1SG.NOM bread.ABS
‘I bake the bread.’ AX:52:45
The marking of the middle voice in the perfective is also the same as for the active voice for Class I\textsuperscript{b} verbs, as shown in the following with the verb /bala/, ‘harvest’.

(537)  è-bàlà \ xíjó \ nãmà \ xù-ná \ l-à-rà \ lòsínjọ́

3-harvest.PFV \ people.NOM \ sorghum.ABS \ PL-REL.F \ SBO-3-be \ red \ sorghum

‘They have harvested red sorghum.’  DO11:14:41

Class II\textsuperscript{a} verbs are similar to Class I\textsuperscript{a} verbs. The imperfective is the same for active and middle voice, as shown in (540) and (549) for the verb /ixen/, ‘read’.

(538)  è-bàlà \ mànà

3-harvest.PFV.MI \ field.NOM

‘The field is harvested.’  BX32:19

In the perfective, the middle voice differs from the active. The prefix /\(x\)/ is not used and, instead, the tone on the first vowel in the stem changes from H to L and the suffix vowel (-\(a\)/ or -\(o\)/) is marked with a low tone. The differences between imperfective and perfective in the middle voice for the verb /irib/, ‘collapse’ are shown in the following.

(541)  e-irib-ò \ xájí \ nápí

3-collapse.MI.PFV \ house.NOM \ your.NOM

‘Your house is collapsing (e.g. we are watching it).’  BW:50:46

(542)  e-irib-ò \ xájí \ nápí

3-collapse.PFV.MI.PFV \ house.NOM \ your.NOM

‘Your house collapsed.’  BW: 50:58

It is also worth comparing the middle voice and detransitivization (the latter is discussed in section 7.4.2). These constructions use the same morpheme (-\(a\)/ or -\(o\)/) and both involve valency reduction. They also appear to have the same tonal pattern. This is shown in
examples (543) and (544) (detransitivization and middle voice respectively) with the verb /jir/, ‘drive’. The suffix is [á] in both cases. The two are distinguished in that, with detransitivization in (543), the subject /ije/, ‘you’, does (or might do) the driving, i.e. the nominatively marked NP is the agent (or potential agent). In the middle voice example, (544), the nominatively marked NP (/toromile/, ‘car’) is not the agent.

(543) x-i-jír-á     íjè  
     Q-2-drive-DETR  2SG.NOM  
     Do (can) you drive?    CP:22:57  

(544) é-jír-á     tóròmílè     ánà     1-è-lìbà  
     3-drive-MI.IPFV     car.NOM     like     SBO-3-be.good  
     ‘The car drives well.’    EJ:03:39  

For comparison, the active, transitive, imperfective construction is given in (545). Here the subject /jné/ has nominative marking and the object /toromile/ has absolutive marking. Note also, that, for the verb /jir/, the imperfective suffix /-a/ is marked with a low tone (in (545)) whereas the middle imperfective suffix /-a/ for the same verb has a high tone (in (544)).

(545) é-jír-á     jné     tóròmílè     ánà     1-è-lìbà  
     3-drive-IPFV     3SG.NOM     car.ABS     like     SBO-3-be.good  
     ‘He drives the car well.’    EJ:03:39  

There is another way in which the middle voice is used and this involves a human subject. The following two examples involve the verb /wur/, ‘break, ‘snap’. In (546), which is a active, transitive construction, the subject, [náŋ], is the agent. In the second example, (547), the subject, [náŋ], is not the agent. Neither the agent, nor how the leg was broken, is revealed. As discussed above in relation to (530), the syntactically active subject of the verb in (547) (i.e. [náŋ], ‘1SG.NOM’) is semantically affected by the action of the verb (/wur/, ‘break’).

(546) á-i-wúr     náŋ     xèjù     nàínò  
     1SG-PFV-break     1SG.NOM     leg.ABS     your.F.ABS  
     ‘I broke your leg.’ (i.e. I did the breaking)    AU:34:55  

(547) á-ná-wúr-ò-k     náŋ     xèjù  
     1SG-PFV-break-MI-DAT     1SG.NOM     leg.ABS  
     ‘I broke my leg.’    AU:33:40
There is a difference between the middle voice construction in (547) and those in (532), (536) (538) and (540). In the latter examples, there is no human subject, even though the activities described involve human participants. It should also be noted that example (547) is not an external possession construction, which is discussed in section 7.4.2. With external possession, the subject (nominative) is the possessum. Example (547) contrasts with (548), where the subject is [xямò], ‘leg.NOM’, which is the possessum and [nàŋ], ‘me’, is the indirect object and (external) possessor.

(548) ó-wúr-ò nàn̂g xёjù
 3-break-MI 1SG.ABS leg.NOM
‘My leg is broken.’ (lit. ‘leg is broken to me’)  AU:34:18

There is no passive in Lopit (this is discussed in the following section 7.4.4). It is not possible to create an expression where the patient becomes the subject and the agent is demoted to an oblique role. This may explain why Lopit does not distinguish (either semantically or morphologically) between the equivalent of ‘the vase broke’ and ‘the vase is broken’. An example of this is given with the verb /wur/, ‘break’, in (549).

(549) ó-wúr-ò xёjù nàltì
 3-break-MI leg.NOM my.F.NOM
‘My leg broke/My leg is broken.’  AU:33:54

7.4.4 A note on the passive

Generally, across languages, the passive is used to convert NPs with semantic roles such as patient, experiencer (which are usually in object grammatical role) to the subject of a clause. As mentioned in the previous section, there is no passive construction in Lopit. Other methods are used to achieve the same ends as a passive construction and these are discussed here.

The following examples relate to a (hypothetical) discussion about a child who was hit by a person. The unmarked utterance is shown in (550) with the verb /bak/, ‘hit’, having two arguments, [tóxónì], ‘person’ (SUBJ) and [ìŋè], ‘him/her’ (OBJ).

(550) è-bák tóxónì ìŋè
 3-hit.N person.NOM 3SG.ABS
‘The person hit him/her.’  AT:00:22:13

(550) could be an answer to the question “What happened to the child?” which is given in (551).
In English, one would probably use the passive in a clause like (552).

(552) 'he/she was hit by the person'

However, in Lopit, a different construction is used, as shown in (553). In this case, it is the information structure rather than the argument structure which is changed. Here the object [ɪ̀ɲɛ̀], 'him/her', is moved to a position before the subject [tóxóñi], changing the word order from VSO to VOS.

(553) े-बाख ɪɲ 3-hit.N 3SG.ABS tóxóñi person.NOM

'The person hit him/her.'  AS:2:24

This emphasis on [ɪɲɛ̀], 'him/her' (i.e. [xítò], the child) in (553) achieves a similar effect to the English passive in (552). This can be regarded as a predicate-focus structure (Lambrecht, 1994, p. 226). In Lambrecht's terms, “the child” is pragmatically available as a topic for discussion and the focus is the event that happened to the child, i.e. being hit.

Another method of expressing the intent of the passive is to use a generic subject (e.g. the noun /xijó/, ‘people’) with the verb. An example is given in (554), which is a translation of the clause ‘the house was built in ten weeks’. The utterance made by the speaker is the equivalent of ‘people built the house in ten weeks’. An active construction is used and the generic [xijó], ‘people.NOM’, is used as the agent.

(554) े-िदिम 3-build.PFV 3SG.ABS xijó people.NOM xàjì house.ABS dè=ìsàbìtí in=weeks ten

'The house was built in ten weeks.' (people built the house in ten weeks) AZ:07:04

Another example is shown in (555), where the literal translation is “Where did people deliver (or give birth to) you?” However, the questioner is interested in where the questionee was born. The construction uses the transitive verb /itádo/, ‘to deliver, give birth to’. The questionee is the patient of the verb. The questioner wants to focus on the questionee, rather than the mother or other people involved in the delivery of the baby. The questioner uses the active construction [oitáðó xijó], ‘people delivered’.

(555) x-o-ितादó 3-deliver Q-3 2SG.ABS xijó people.NOM ijè where

Where were you born? (Where did people deliver you?)  AY01:02:19
The middle voice (see the previous section) is also used to express some of the features which might be provided by the passive. This is shown in (557) which is an answer to the question in (556). Here the patient (/xītɔ/, 'child') in (556) has become the subject in the middle voice construction (557). However, the agent (/xītɔ/, 'scorpion') has been deleted.

(556)  x-e-i-ŋór  xītò  xītò
   Q-3-PFV-sting  scorpion.NOM  child.ABS
   'Did the scorpion bite the child?'  BQ:47:14

(557)  e:  ə-ŋór-ə  xītò
   yes  3-sting-ML.PFV  child.NOM
   'Yes, the child was bitten.'  BQ:47:27

7.4.5 External possession

The following two examples are given to illustrate external possession in Lopit. The verb /bɔr/, 'break, shatter' can be intransitive in the middle-voice. In (558), its only argument is the subject [gilás], 'glass.NOM'.

(558)  ó-bór-à  gilás
   3-break-MI  glass.NOM
   'The glass broke.'  AG:33:00

However, the 'owner' of the glass can be introduced into a clause as shown in (559). The pronoun, [iŋè], is not nominative and acts as an object of the verb, thereby changing the valency of the verb.

(559)  ó-bór-à  iŋè  gilás
   3-break-MI  3SG.ABS  glass.NOM
   'His glass is broken.' (lit. 'the glass broke him')  AZ:25:31

The word order is often VOS for external possession constructions. When the 'possessor' (or affectee) is higher on the prominence hierarchy than the nominative-marked subject, the former precedes the latter in word order. Another example is given in (560) using the verb /wák/, 'want'. (The prominence hierarchy is discussed in section 7.2.2 above).

(560)  íjáni  xītèŋ  nà  l-ð-wák  ijè  tájí
   IMP.bring  cow.ABS  REL.F  SBO-3-want  2SG.ABS  heart.NOM
   'Bring whichever cow you want'.
   (Lit. 'bring a cow that the heart wants to you')  BW:45:49
Examples (559) and (560) are instances of external possession. Payne and Barshi define external possession (EP) to be constructions in which "a semantic possessor-possessum relation is expressed by coding the possessor (PR) as a core grammatical relation of the verb and in a constituent separate from that which contains the possessum (PM)" (1999, p. 3). The possessor is expressed like a direct argument of one of the main predicate types (intransitive, transitive, ditransitive). It is generally encoded as an object, but not an oblique. This can be regarded as a valency increasing operation in which, for example, an intransitive verb becomes transitive through the introduction of an extra argument. Thus, in (560), the possessor [iʃe], ‘you.ABS’, is an object of the verb /wak/, ‘want’. The possessum [tàʃ], ‘heart.NOM’, has nominative case marking and is the subject of the verb.

External possession can also be used for stative verbs, as shown below for the verb /gataŋa/, ‘to be flat’ and for the verb /ɾiok/, ‘be black’, ‘be dark’.

(561) è-gàtāŋa nàŋ xò
3-be.flat 1SG.ABS head.NOM
‘My head is flat.’ (lit. ‘the head is flat me’) 20140508-1-00:26:36

(562) è-ɾiɔ́xɔ̀ nàŋ tàʃí
3-be.black 1SG.ABS heart.NOM
‘I feel bad.’ (lit. ‘the heart is dark me’) CS:46:32

External possession differs from standard nominal possession, which is discussed in section 4.6.5. Lopit has the possession particles /le/, ‘of.M’ and /na/, ‘of.F’. The feminine form is shown in (563). There are also pronominal possessives, one of which is illustrated in (564). In these examples, the possessor and the possessum are part of a single noun phrase, which is the subject of the verb. This contrasts with external possession where the possessor and possessum are separate arguments of the verb.

(563) ɔ̀-bɔ́ɾɔ̀ xáji nà xábó
3-be.big house.NOM of.F king.ABS
‘The chief’s house is big (lit. the house of the chief is big).’ ED:01:24

(564) ɔ̀-bɔ́ɾɔ̀ xáji nàitì
3-be.big house.NOM my.F.NOM
‘My house is big (lit. the house of mine is big).’ EC:23:20

Possession can also be expressed with predicate constructions, discussed in section 7.6.5.
7.5 Reflexives and reciprocals

7.5.1 Reflexives

Reflexives are used when the subject and object of a verb are the same entity. Cross-linguistically, reflexives can be expressed lexically, morphologically and analytically (T. E. Payne, 1997, p. 198). In Lopit, reflexives are mostly expressed analytically but can also be expressed lexically and morphologically.

Reflexives can be expressed lexically with some verbs. An example is given in (565) with the verb /sario/, 'bathe'. Here, the implication is that the agent and the patient are the same entity.

(565) á-sáriò nàŋ
1SG-bathe 1SG-NOM
'I bathe (myself).’ AX29:33

Reflexives can be expressed morphologically using the detransitivization construction (section 7.4.2). Example (566) illustrated the Class IIA verb /icef/, 'dress', in the detransitivized form, [aíćèfö]. This can be compared with the transitive form [aíćèf] in (567).

(566) a-ícèf-ò nàŋ dò=móité?
1SG-dress-DETR 1SG.NOM in=morning
'I dress (myself) in the morning.’ AX27:00

(567) a-ícèf nàŋ bòŋò nà l-ò-bwór
1SG-dress.N 1SG.NOM shirt.ABS of.F SBO-3-be.white
'I put on my white shirt.’ EAː28ː18

It worth noting the statement by Arce-Arenales et al. that middle voice as well as “reflexive, reciprocal, impersonal, and detransitivization constructions, are so often marked with the same (verbal) morphology in many languages” and that “these constructions are linked by the fact that in them the subject of an active voice construction is also an affected entity” (1994, p. 2). The use of the suffixes /-a/ and /-o/ is observed for the middle voice (7.4.2) and for detransitivization (7.4.2), as well as for the imperfective (6.4.2), albeit with some variation in tonal marking.

Mostly, however, reflexives are expressed analytically using the words /kwan/, 'body', or /kwanite/, ‘bodies’, as shown in (568) and (569). The possessive construction (e.g. [kwán nàŋ], 'him/herself') is used.
The word /kwan/ can be translated as ‘body’ or ‘torso’. This is common in African languages, where “body parts are almost exclusively the source of reflexive markers” (Schladt, 2000, p110). Heine also discusses the use of the noun ‘body’ as a reflexive marker in African languages and outlines some of the pathways of grammaticalization (2011, p. 50). In contrast to other languages, it appears that the word /kwan/ in Lopit behaves as a noun and is in the first stage of grammaticalization (i.e. the noun for the whole body “forms the object of the clause and has a possessive modifier that correlates with the subject of the sentence” (Schladt, 2000, p. 113). This is shown in examples (568) and (569).

A further example of how the word /kwan/ behaves as a noun is shown in (570). Here, the phrase [bòŋò nà kwàn], ‘shirt (lit. clothing of body)’, becomes [bòŋò nàití nà kwàn], ‘my shirt (lit. clothing of mine of body)’. That is, the modifier [nà kwàn] moves after the pronominal possessor and can be regarded as a nominal possessor (see section 4.7 on constituent order in the noun phrase).

The phrase, [tè kwàn(-ítè)] can be added to emphasise that the activity was carried out by ‘myself’ or ‘ourselves’ as shown in (571) and (572). These could be regarded as emphatic reflexives (rather than true reflexive; see Kemmer (2005, p. 55)). This phrase is usually optional and it indicates that it is emphatic reflexive. However, in cases when there were multiple participants, [tè kwànítè] helps to differentiate these reflexives from the similarly constructed reciprocals. Without the phrase [tè kwànítè], example (572) could be interpreted as ‘We teach each other’. Reciprocals are discussed in section 7.5.2.

(568) e-i-kém ñè ńwá kwàn nàñí
3-PFV-try 3SG.NOM COMP LOG.SG-help body.ABS his.F.ABS
‘He tried to help himself.’ CY:01:03:48

(569) ei-ití-i-jen-a ño xo kwàn-ítè xʊ-nàñí
1PL-CAUS-know-IPFV 1PL.NOM body-PL PL-ours.ABS
‘We teach ourselves.’ 14/10/11_sesh3

(570) á-reimik nàñ x-là bòŋò nàltí nà kwàn àínà
1SG-be.able 1SG INF-wash clothing my.F.ABS of.F body today
‘I can wash my shirt today.’ AA:44:43

(571) a-ití-jèn-à nàñ kwàn nàltí tè = kwàn
1SG-CAUS-know-IPFV 1SG.NOM self my.ABS from = body
‘I teach myself.’ 14/10/11_sesh3
Reflexives can also be expressed analytically without the word /kwan/. Double pronouns (subject/object, agent/patient) can be used. This is shown in (573) with a benefactive construction and in (574) with a standard transitive construction. The consultant said that these constructions were less common than those with /kwan/ and that, usually, example (574) would be expressed as (575).

(573) á-ɲɪ́m-ò-k náŋ nàŋ xítɛŋ
1SG-choose-IPFV-DAT 1SG.NOM 1SG.ABS cow.ABS
‘I’m buying myself a cow.’ (lit. I’m choosing me a cow) CV:10:23

(574) á-wóló náŋ nàŋ
1SG-see.N 1SG.NOM 1SG.ABS
‘I see myself.’ EJ:10:27

(575) á-wóló náŋ kwàn nàltí
1SG-cut.N 1SG.NOM body.ABS my.F.ABS
‘I see myself.’ EJ:10:46

Possessive pronouns (such as [lɛ̀ɲɪ́], ‘his.M.ABS’) can also be used.

(576) e-ixút fKWó dó mei lbbó lò l-ò-mútà à = lɛ̀ɲí
3-dig.N squirrel.NOM place.ABS one.M REL.M SBO-3.be.small to = his.M.ABS
‘The squirrel dug a small hole for himself.’ Squirrel Story (101)

7.5.2 Reciprocals

Evans describes the prototypical reciprocal construction as “a situation where two participants engage, simultaneously, in mutual action (John kisses Mary, and Mary kisses John, at the same time)” (2008, p. 39). The two participants generally act equally on each other and both are equally ‘agent’ and ‘patient’. It is often more complex than this as there may be more than two people and the actions may be simultaneous or sequential.

In Lopit, reciprocals can be formed using the plural form, /kwânte/, ‘selves’, ‘bodies’, as shown in (577) and (578). The reciprocal construction is essentially the same as the reflexive. Note that the personal possessive marker, [xônaicè], is optional.
However, this construction is not always used since it often results in ambiguity. Example (579) could also be translated as ‘the doctor and patient spoke to themselves (but not the other).’

(579) e-irɔ̀-rk diktɔ̀r xɔ=xåmwaŋi kwåntè
3-speak-DAT doctor.NOM with = patient.ABS self-PL
'The doctor and patient speak to each other.' EK:23:45

In cases like this, alternative constructions are often used. Example (579) is probably more usually expressed as (580). This latter example could be interpreted as either a normal comitative or an inclusory construction (see section 9.3). That is, it could be translated as ‘The doctor spoke with patient’ (comitative) or ‘The doctor and the patient are speaking’ (inclusory). It is the inclusory interpretation which gives the reciprocal meaning.

(580) e-ìrɔ̀ diktɔ̀r xɔ=xåmwaŋi
3-speak doctor.NOM with = patient.ABS
'The doctor and the patient are speaking.' EK:23:40

A similar example is given in (581). This could be translated as ‘Victor greets with Patrick (lit. he-greets Victor with Patrick)’; i.e. a comitative construction. Alternatively, it could be translated as Victor and Patrick greet each other (they-greet Victor with Patrick); i.e. an inclusory construction.

(581) e-ìmål-à viktɔ̀r xɔ=påtrik
3-greet-IPFV Viktor with = Patrick
‘Victor and Patrick greet each other.’ EA:57:06

7.6 Predicate nominals and related constructions

Lopit has a range of ‘predicate’ constructions (e.g. predicate nominal, predicate attributives and existential predicates) which contain no verb or contain a copula (or semantically empty) verb. Two copula verbs have been identified, /ra/, ‘be’, and /wːon/, ‘exist’. Verbless predicate constructions can still be described as clauses in that they contain a predicate and its argument.
7.6.1 Predicate nominals

Lopit has a number of predicate nominal constructions. The first type of construction I am calling “proper inclusion” (T. E. Payne, 1997, p. 114); it has also been called a “non-referential” nominal predicate (Dryer, 2007, p. 233). Proper inclusion is “when a specific entity is asserted to be among the class of items specified in the nominal predicate” (T. E. Payne, 1997, p. 114). Usually, the subject is specific (‘he’/‘she’) and the nominal predicate is non-specific (e.g. a teacher) as illustrated in (582). In Lopit, proper inclusion constructions can be formed with the copula verb /ra/, ‘be’, followed by the subject and then the predicate nominal.

(582) á-rá íɲé xaìtíːjːénàní
    3-be 3SG.NOM teacher.ABS
     ‘He/she is a teacher.’    CZ:09:26

It appears that verbless predicate nominals do not normally occur. An utterance like [íɲé xaìtíːjːénàní] is not acceptable (DHː02ː34).

However there are utterances consisting of only a pronoun and a noun. An example is given in (583), which occurred when someone knocked on the door and announced themselves. This appears to be a kind of focussed construction. In the utterance, both NPs are specific, so it does not really make sense to call it a predicate nominal. It appears to be an example of juxtaposed, or perhaps, appositional NPs.

(583) nàŋjá lbbűŋít
    1SG.ABS.FOC Lobongit.ABS
     ‘It is I, Lobongit.’    DH:51:54

The second type of predicate nominal I am calling an “equative predicate nominal” (T. E. Payne, 1997, p. 114); it has also been called a “referential” nominal predicate (Dryer, 2007, p. 233). An equative predicate nominal is one “which asserts that a particular entity (the subject of the clause) is identical to the entity specified in the predicate nominal” (T. E. Payne, 1997, p. 114). These constructions can be formed with a copula verb in Lopit (but not without a verb). These constructions can be reversed as shown in (584) and (585), with the only difference in meaning being a possible difference in emphasis.

(584) á-rá xàbò làrɛ̀wà lîtí
    3-be chief.NOM husband.ABS my.M.ABS
     ‘The chief is my husband.’    BT:15:50
7.6.2 Attributive constructions (predicate adjectives)

There are few true adjectives in Lopit (see Section 8.2). Most property concepts are expressed by relative clauses using stative verbs. This means that an semantically attributive construction can be made using stative verbs. Thus an English predicate adjective such as ‘he is very lazy’ can be expressed as a stative verb construction (or intransitive verbal predicate) in Lopit. The word /bɪnɔ/, ‘very’, is discussed in section 8.3.1.3.

However, there are a limited number of true adjectives. One of these is /ŋəɟʊk/, ‘new’, and it can be used attributively with the copula verb /ra/, ‘be’.

The adjective /ruxulak/, ‘clever.Pl’, can be used in a superlative attributive construction with the verb /ra/, ‘be’.

There are other words which can be used attributively. The word /bɔlɔŋ/, ‘peaceful, well’ is most likely an adverb, since it can not be used adnominally (AX:35:35). The following utterance could be translated literally as ‘we exist peacefully’.

Another example is found with the adverb /xaxi/, ‘alone’. This can be used with the copula verb /w:on/ in (590) and also in a verbless utterance (591). (Note that latter could also be described as a locative predicate clause.)
Note that the preceding predicates with the verb /wːon/, 'exist, be', could also be described as existential predicates (see next section).

### 7.6.3 Existential predicates

Lopit has verbless existential predicates using demonstratives (‘predicative demonstratives’; see section 4.6.4 on demonstratives). These are used to denote an entity and can be used to point something out or to introduce somebody. They can be described as presentative existentials (T. E. Payne, 1997, p. 123). The demonstratives have nominative case and are placed after the NP. Thus, in the following example, the demonstrative [in:áŋ], ‘this.F.NOM’ is placed after the NP [nábò ŋéjúk], ‘another new thing’. Similar examples with different demonstratives are given in (593) and (594).

(592) nábò ŋéjúk in:áŋ
    one.F new.thing.ABS this.F.NOM
    ‘This is another new one.’ BG:42:07

(593) mɔ́ɲɛ́ lè máná ɪl:ɛ́
    owner.ABS of.M farmABS this.M.NOM
    ‘This is the owner of the farm.’ DH:09:06

(594) tɔrɔmílè ɔltí nènió
    car.ABS my.F.ABS that.far.F.NOM
    ‘That’s my car.’ DH:49:11

They can also be constructed with copular verbs, in particular with /wːon/, ‘exist’, as shown in (597). In these situations, a demonstrative is not normally used and there is no overtly expressed subject. Note that this could also be described as a locative predicate (Dryer, 2007, p. 241).

(595) ó-wːón jãí dê = kúbaijá
    3-exist tea.ABS in = cup.ABS
    ‘There is tea in the cup’. DH:01:07:27
The following is a common way of starting a story.

(596) ó-wːón ífá xító leltíŋ
3-exist PST child.ABS small.M
'There was a little boy'. BC:03:30

In both of these examples, i.e. (595) and (596), the subject of existential predicate is indefinite (or pragmatically nondefinable, (Dryer, 2007, p. 241)) and the verb /wːon/ is used. The NP [xító leltíŋ] is in the Absolutive case form. When the subject is definite, the verb /ra/, 'be' is used as shown (597) and in examples (584) and (588) above.

(597) á-rá náŋ lɔbɔŋíŋ
1SG-be 1SG.NOM Lobongit.ABS
'I am Lobongit.' AL:10:30

### 7.6.4 Locative predicates

In a locational predication, the existence of an entity is presupposed and the entity is categorised with respect to its location in space. These can be constructed with and without verbs. There can be some overlap with existential predicates.

When using demonstratives, the word order can usually determine whether the predicate is existential or locative. When the demonstrative follows the noun, it has an existential meaning. When the demonstrative comes first, the utterance is a locative predicate.

(598) xábò ílɛŋ ílɛŋ xábò
chief.ABS this.M.NOM this.M.NOM chief.ABS
'This is the chief.' 'The chief is here.' DI:09:30

With more complex predicate constructions, such as with a relative clause in the following examples, the word order does not appear to influence the meaning.

(599) mòløŋ ínːáŋ [nà l-ð-xóŋ xìwarò]
baboon.ABS this.F.NOM RELF SBO-3-bit.PFV leopard.NOM
'This is the baboon that the leopard bit.' BT:29:50

(600) ínːáŋ mòløŋ [nà l-ð-xóŋ xìwarò]
this.F.NOM baboon.ABS RELF SBO-3-bit.PFV leopard.NOM
'This is the baboon that the leopard bit.' BT:29:57

The order of the demonstrative and the noun can also depend on discourse context, as illustrated by the following question and answer. When the question in (601) is asked, the

The order of the demonstrative and the noun can also depend on discourse context, as illustrated by the following question and answer. When the question in (601) is asked, the...
referent of /xabo/ becomes a topic and hence it makes sense for this word to commence the answer in (602). This is in contrast to the usual way of expressing the locative predicate, which would be [là xàbô], ‘the chief is there’.

(601) tàxó xàbô
     where chief.ABS
     ‘Where is the chief?’      DI:16:19

(602) xàbô lá tá xɔ̀ =ɪtɛ́
     chief.ABS that.M there with=you.PL.ABS
     ‘The chief is there with you.’      DI:17:53

Often, more information is given about the location and adjuncts like /ini/, ‘here’; /ta/, /ten/, ‘there’; and /dede/, ‘over there’, are used. The following example is both a locative and an existential predicate clause. This is not unusual cross-linguistically (Dryer, 2007, p. 241).

(603) ilːɛŋ xàbô tè =ɪnì
     this.M chief.ABS at =here
     ‘This is the chief here.’      DI:11:15

The verb /wːon/, ‘exist’, can be used for locative predicates, as illustrated in (604).

(604) ó-wːon dɛ̀ =xàŋ
     3-exist at =home.ABS
     ‘He is at home’.      DH:01:02:45

Example (604) can also be expressed as a verbless locative using /ilːɛŋ/. It is worth noting that the preposition changes from /de/ to /te/ as the construction changes from a verb copula construction in (604) to a verbless one in (605). This is observed in other examples such as (606) and in (591) above. (See also section 3.3.2 on prepositions).

(605) ilːɛŋ ɪŋɛ̀ tɛ̀ =xàŋ
     this.M 3SG.ABS at =home.ABS
     ‘He is at home’.      DH:01:03:17

(606) xànàsî nàltí ɪnːáŋ tɛ̀ =xàjì
     sister.ABS my.F.ABS this.F at =village.ABS
     ‘My sister is (here) in the village.’      AG:01:45:59
A further example of a locative predicate with a copula verb is given in (607). This can be compared to the verbless locative predicate in (608) which has a relative clause [(nà) ló:w:ón dè jàñì], ‘who is in the tree’) modifying the NP ([mɔ́lɔ́ŋ], ‘baboon’).

(607) ó-w:ón mɔ́lɔ́ŋ dè jàñì
3-exist baboon.NOM in = tree.ABS
‘The baboon is in the tree.’ BT:38:14

(608) nìà mɔ́lɔ́ŋ l-ó-w:ón dè jàñì
that.F baboon.ABS SBO-3-exist in = tree.ABS
‘There is a baboon in the tree.’ BT:39:01

7.6.5 Possession involving predicate constructions

Lopit has a range of ways of expressing possession. Some of them involve predicate constructions. These can be existential predicates, as in (609) with the demonstrative /θɛŋ/ or /ɪŋaŋ/ and in (610) with the copula verb /ra/, ‘be’.

(609) xitéŋ nàìtì línáŋ
cow.ABS my.F.ABS this.F
‘This is my cow.’ DI:01:53

(610) á-rá xitéŋ nàìtí
3-be cow.NOM my.F.ABS
‘The cow is mine.’ DI:01:05

Predicate possession can also be expressed with the verb /w:on/, ‘exist, be’. In this construction, the verb /w:on/ is normally used in a comitative or inclusory construction (see section 9.3). The following example uses a comitative construction. It can be translated literally as ‘we-exist we with car’.

(611) eí-w:ón ifiéxoí xò = tòròmîlé
1PL-exist 1PL.NOM with = car.ABS
‘We have a car.’ DE:19:06

Another example is given in (611). In this example the subordinate clause [éŋaíw:ón ifiéxoí xò dónì?] could be described as an existential predicate clause and can be translated literally as ‘if we exist with drums’.

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The following example uses the prepositional phrase [xò tòròmílé], ‘with a car’ following a comitative construction [íwːón íjé xɔ̀ ń], (lit. ‘You exist with me’). The literal translation is ‘you exist with me with a car’.

The only possessive existential constructions that I have found in my corpus are those using /wːon xɔ/, ‘exist with’. This is not surprising given that Lopit is a strongly WITH-language (see section 9.3). These constructions have been called comitative existentials or ‘com-existentials’ by Creissels (2013, p. 461). He defines them as “existential predications in which the figure is encoded like the phrase representing the companion in comitative predication” (2014, p. 40).

It is also possible to use the verb /ijeita/, ‘have’, in a standard verbal construction (as opposed to a existential construction) to express ownership. This verb can be used with objects, animals, people and abstract nouns. Some examples are given in (614) to (616).

(612) á-ŋai-cá náŋ [é-ŋai-wːón ỳìoxòì xò = dòŋiʔ]
    1SG-IRR-dance 1SG.NOM 1PL-IRR-exist 1PL.NOM with = drums.ABS
‘I would dance if we had drums.’ Bl:19:24

(613) í-wːón íjé xò = nàŋ xò = tòròmílé
    2-exist 2SG.NOM with = 1SG.ABS with = car.ABS
‘You and I have a car.’ DE:19:50

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(614) a-ijeita náŋ xítfə
    1SG-have 1SG.NOM cow.ABS
‘I have a cow.’ DI:00:22

(615) a-ijeita náŋ irásí lòbó ínì xàjọ lóboité dà = àmèrìkà
    1SG-have 1SG.NOM brother.ABS one here and.then one in = America
‘I have one brother here and one in America.’ DS:24:36

(616) xíné xíjoxú xɔ́jọ xítfə
goat.ABS dog.ABS and.then cow.ABS
   e-ijeita lòmótè nà 1-l-bóɾɔ̀
   3-have friendship REL SBO-3-be.big
‘The goat, the dog and the cow are great friends.’
   (lit. ‘The goat, the dog and the cow have a friendship which is big’) DS:27:42

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7.7 Interrogative

7.7.1 Polar interrogative

The verbal prefix /x-/ is used to form the polar interrogative, i.e. those questions requiring yes/no answers. It is glossed as Q. Compare (617) and (618), of which the first is a declarative utterance. In the second example, the prefix /x-/ is used, together with rising intonation at the end of the utterance, to construct a question. Note that the interrogative prefix /x-/ is also used in content interrogatives (see 7.7.2). It is also used as a sequential marker and this is discussed in section 9.1.2.

(617) aï-wɔlɔ̀ náŋ ijë ñɔlɛʔ
1SG>2SG-see.PFV 1SG.NOM 2SG.ABS yesterday
‘I saw you yesterday.’ 11_09_01group (16)

(618) x-aï-wɔlɔ̀ náŋ ijë ñɔlɛʔ
Q-1SG>2SG-see.PFV 1SG.NOM 2SG.ABS yesterday
‘Did I see you yesterday?’ 11_09_01group (15)

Another way of expressing a polar interrogative is with an interrogative tag, [xɔ̀ɲá ìfá], as shown in (619). However, unlike English, the tag does not change for polarity (620) or temporal situation (621).

(619) ò-wú íńé à=sùk x-ɔ̀ɲá ífá
3-go 3SG.NOM to=market.ABS Q-3-not.be PST
‘She went to the market, didn’t she?’ AJ:01:04:12

(620) íńá íńé l-o-wu à=sùk x-ɔ̀ɲá ìfá
not.be 3SG.NOM SBO-3-go to=market.ABS Q-3-not.be PST
‘She didn’t go to the market, did she?’ AJ:01:04:26

(621) ò-wú ìsò íńé à=sùk x-ɔ̀ɲá ífá
3-go FUT 3SG.NOM to=market.ABS Q-3-not.be PST
‘She will go to the market, won’t she?’ AJ:01:04:26

The interrogative tag does not change with the person of the subject in the main clause, as shown for the second and first person in the next two examples.
The tag \[xɔ̀ɲá]\ involves the negative (auxiliary) verb /ɲa/ and \[xɔ̀ɲá\] can be glossed as 'Q-3-not.be'. It is not surprising that \[xɔ̀ɲá\] does not vary for person since the negative auxiliary, /ɲa/, is also often unmarked for person (see section 7.8.1 on negation). The word \[xɔ̀ɲá\] has lost its normal interpretation of 'past' or 'remote past'. This is shown by the use of \[xɔ̀ɲá\] for the future in (621) and by the fact that the phrase \[xɔ̀ɲá isó\] was rejected.

The use of the question marker, /x-/, can result in a change in the pronominal marker; for example with subject/object prefix /ɛɪ-/ . The declarative situation is shown in (624). The prefix /ɛɪ-/ is realised as \[ɔɪ\] in (625) when it is turned into a question. This is not a case of mid-vowel assimilation (section 2.4.2) since the close-front vowel is blocking assimilation. This can also happen when /x-/ is the sequential marker and this is discussed in section 9.1.2.

Table 7-7: Interrogative prefixes in Eastern Nilotic languages

<table>
<thead>
<tr>
<th>language</th>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Turkana</th>
<th>Ateso</th>
<th>Bari</th>
</tr>
</thead>
<tbody>
<tr>
<td>interrogative</td>
<td>x-</td>
<td>-</td>
<td>?</td>
<td>-á</td>
<td>k-</td>
<td>-</td>
</tr>
</tbody>
</table>
7.7.2 Content or information interrogative

The same prefix /x-/ is used with question words (or interrogative pronouns). Question words, like /ŋo/, ‘what’, and /ŋai/, ‘who/whom’, can refer to a subject or object or oblique. They are often located in that place in the clause where the subject or object would be (‘in-situ’). Thus, when the question word represents the object of the verb, it usually follows both the verb and subject, as shown in the following three examples.

(626) x-i-ŋgém-á ñjé ñò
Q-2SG-work-IPFV 2SG.NOM what
‘What are you doing?’ AD:30:46

(627) x-i-ñiñá ñjé ñò
Q-2SG-clean. IPFV 2SG.NOM what
What are you cleaning?’ AD:32:40

(628) x-i-isere ñjé ñò dò=xùróxó xùlìlò l-e-ìría
Q-2SG-give 2SG.NOM what to=goat.kids.ABS your.M.PL.ABS SBO-3-grind
“What did you give to your goat kids to make them grind?” Squirrel story EA.JL

A comparison between an object and an oblique is shown in (629) and (630). In both these examples, the question word [ŋai] refers to the recipient of the knife. In (629) the word [ŋai] refers to the object (the person in ‘I gave the person the knife’) and comes after the subject. In (630) [ŋai] refers to the person in the oblique construction (‘I gave the knife to the person’) and comes after the object.

(629) x-a-ìsiérë nàŋ ŋai dòmì
Q-1SG-give 1SG.NOM who knife.ABS
‘To whom did I give the knife?’ CY:47:20

(630) x-a-ìsiérë nàŋ dòmì dè=ŋai
Q-1SG-give 1SG.NOM knife.ABS to=who
‘To whom did I give the knife?’ CY:47:20

The question word can also be placed at the start of the clause. In this case, the subordinate marker /l-/ is used as the verbal prefix instead of /x-/ . The following two examples have the same meaning. In the second one, the question word is at the start of the clause.
Some common question words are shown in Table 7-8. Some of them show gender and number agreement with the possessed. An example is given with /nari/, ‘which.F’, in (633).

Some common question words are shown in Table 7-8. Some of them show gender and number agreement with the possessed. An example is given with /nari/, ‘which.F’, in (633).

### Table 7-8: Some question words

<table>
<thead>
<tr>
<th>who</th>
<th>whose</th>
<th>which</th>
<th>what</th>
<th>why</th>
<th>when</th>
<th>where</th>
<th>how</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>PL</td>
<td>SG</td>
<td>PL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>masculine</td>
<td>nai</td>
<td>lenai</td>
<td>xulenai</td>
<td>lari</td>
<td>kwari</td>
<td></td>
<td></td>
</tr>
<tr>
<td>feminine</td>
<td>nai</td>
<td>nanaai</td>
<td>xunanaai</td>
<td>nari</td>
<td>kwari</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

(633) nàri tórömìlè 1-á-rá nàinó
which.F car.NOM SBO-3-be your.F.ABS
‘Which car is yours?’ DJ:01:00:48

### 7.7.3 Verbless questions

Content questions involving nominal predicates (or copulas) can be formed without a verb. The question word is usually placed initially.

(634) nai máŋé le sòxinè íná
who owner of.M thing this.F
‘Who is the owner of this thing?’ EL:25:33

(635) tòxó diktór lè l-è-máŋá dè=júbà
where doctor REL.M SBO-3-live in=Juba
‘Where is the doctor who lives in Juba?’ EL:28:09

Questions can also be formed with question words and existential predicates (see section 7.6.3) (i.e. also without verbs). The demonstrative is clause-final but the question word can be before or after the topic.

(636) tórömìlè náŋaí nèniò
car.ABS whose.F that.F.far
‘Whose car is that? DJ:01:00:48
7.8 Negation

7.8.1 General negation

The negative is expressed with the (auxiliary) verb /ɲa/. When it is used with a main verb, the matrix verb is placed after the subject and is prefixed with the subordination marker /l-/ or ‘SBO’. This is shown in the next two examples. Note that the subject maintains its nominative case marking. The matrix verb [láwû] maintains its first person pronominal marking.

(637) náŋá tórômìlè něniò
whose.F car.ABS that.F.far

‘Whose car is that? DJ:01:00:57

(638) á-wú náŋ à=tórít
1SG-go 1SG.NOM to=Torit

‘I’m going to Torit.’

(639) ḣnà náŋ l-á-wú à=tórít
not.be 1SG.NOM SBO-1SG-go to=Torit

‘I’m not going to Torit.’ BT:05:54

The negative [ɲá] is can be regarded as an auxiliary verb. It does not follow the normal pronominal marking paradigm in its simplest form. Constructions such as example (640), with the normal first-person pronominal marking, are not possible. The word [ɲá] is used for 1st, 2nd and 3rd person and I gloss it as ‘not.be’.

(640) *a-ɲá náŋ l-á-wú à=tórít
1SG-not.be 1SG.NOM SBO-1SG-go to=Torit

Attempted: ‘I’m not going to Torit.’ AE:02:03:25

However, the negative does show a range of person marking inflections in other situations. In a subordinate clause, person marking on the negative verb is observed when it is used with the subordinator /l-/ or ‘SBO’. This is shown with [lápá] in the second clause in (641).

(641) á-gíló-k náŋ xjo l-dáxá ítì bi
1SG-think-DAT 1SG.NOM COMP 2- eat.N 2PL.NOM indeed

l-á-pá náŋ l-á-jún-ú à=xàjì
SBO-1SG-not.be 1SG.NOM SBO-1SG-go-VEN to=house

‘I thought you were eating, so I didn’t come into the house.’ CK:34:07

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On the other hand, in complement clauses (as discussed in section 9.4), the subordinator is not used on the verb. This is shown in the second clause in (642) with the verb [òlòtú]. The negative version of (642) is shown in (643). Here the negative verb [ɨɲà] is placed after the complementizer and has the same form as the negative verb in the independent clause in (639) (i.e. the person marker is /i-/).

(642) á-jén náŋ xìjò ò-lòt-ú ɨɲé  
1SG-know 1SG.NOM COMP 3-go-VEN 3SG.NOM  
‘I know that he is coming.’  EG:00:19:00

(643) á-jén náŋ xìjò ɨɲà ɨɲé l-ò-lòt-ú  
1SG-know 1SG.NOM COMP not.be 3SG.NOM SBO-3-go-VEN  
‘I know that he is not coming.’  EG:00:19:26

In negative constructions involving some kind of modality, the negative verb can be modally inflected and, in this case, it has pronominal marking. In the following two examples, the irrealis prefix /ɲai-/ is used. Note that the main verb (/mwei/, ‘be sick’, in this case) retains its pronominal marking.

(644) á-ɲai-ɲà náŋ l-á-mweì  
1SG-IRR-not.be 1SG.NOM SBO-1SG-be.sick  
á-ɲai-ibóŋ náŋ xò=xìjò xùnà l-ò-lòŋrà  
1SG-IRR-meet 1SG.NOM with =people.ABS REL.PL SBO-3PL-be.many  
‘Were I not sick (if I weren’t sick), I would have met many people.’  AD:1:25:40

(645) ë-ɲai-ɲà ɨjòxøi l-ëf-mweì  
1PL-IRR-not.be 1PL.NOM SBO-1PL-be.sick  
ë-ɲai-ibóŋ ɨjòxøi xò=xìjò xùnà l-ò-lòŋrà  
1PL-IRR-meet 1PL.NOM with =people.ABS REL.PL SBO-3PL-be.many  
‘Were we not sick, we would have met many people.’  AD:1:28:21

The verb /ɲa/ also also shows person marking when it is used in clause coordination with the sequential marker /x-/ (see section 9.2.2.2). In (808), the word [xɔ́nà] shows third person marking. Note that the third person marker is [ɔ] when the sequential marker is used instead of the normal third person marker /ɛ-/ (see section 9.1.2).

(646) ò-wòlò náŋɔ́ruò xísøŋ x-ɔ-ɲà xàtí l-ò-wòlò kérà  
3-see.PFV wife.NOM cattle.ABS SEQ-3-not.be but SBO-3-see.PFV sheep.PL.ABS  
The wife saw cattle but didn’t see sheep.’  AR:01:04:22
The negative /ŋa/ can thus be described as an auxiliary verb and glossed as ‘not.be’. The pronominal marking for /ŋa/ is normally the same as other verbs and is shown in Table 7-9 below. As discussed in section 5.3.1, the 1PL pronominal marker /ɛɪ-/ is realised as [ɛ] before the prefixes /ŋa-/ and /ŋai-/ as shown in (644).

<table>
<thead>
<tr>
<th>Table 7-9: Pronominal markers for the negative verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronominal marker</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>person</td>
</tr>
<tr>
<td>a-</td>
</tr>
</tbody>
</table>

The negative construction can also be used as a negative existential copula. The verb [ɪɲá] can be translated as 'there is not' or 'there is no'.

(647) ɪɲá xifjóɲ not.be water.ABS

‘There is no water.’  CN:07:49

Other, similar constructions are used to express a lack of something or a negative existence. Lopit does not appear to have a verb which might be translated as ‘be absent’. Some constructions involve interrogative pronouns. Thus, in (648), /ŋo/ could be interpreted as the indefinite pronoun ‘something’ and, in (649), /ŋai/ could be interpreted as ‘somebody’. The use of interrogatives as indefinite pronouns is cross-linguistically common (Haspelmath, 2001, pp. 170–176).

(648) ɪɲá ŋo dè=xàjì
not.be what in = house.ABS
‘There is nothing in the house.’  BG:27:19

(649) ɪɲá ŋai tè=ini
not.be who in = here
‘There is no-one here.’  CN:08:12

The word [ɪɲá] is used when answering in the negative, as shown in (650). In this case, I gloss it as NEG.

(650) ɪɲá a-írám ɪfá náɲ fár nàboitè jà
NEG 1SG-play.N PST 1SG.NOM day one just
‘No, I played just one day.’  AG:00:40:12

Negation is commonly encoded through verbal inflection in African languages, although some Nilo-Saharan languages have "special negative auxiliaries" (Creissels et al., 2008, p.
135). Eastern Nilotic languages use a separate verb, a negative prefix or a particle for expressing the negative. A range of languages is shown in Table 7-10.

Both Lopit and Otuho use a negative verb translated as ‘not be’. Maa has the prefix m- for some aspects (imperfective, proximate, progressive) and the negation marker eitu/ettu, ‘not’, for perfective (König, 1993, p. 127). It also has the independent negative word mímé (Tucker & Mpaayei, 1955). With Turkana, there are three negation markers are used (na-, pe-, and nyi-) and these are prefixed to the verb stem (Dimmendaal, 1983b, p. 441). Ateso has a clause-initial word mam(ʊ), ‘not be’, which Barasa describes as a "negation word" (2017, p. 204) or as a "verb" (2017, p. 122).

<table>
<thead>
<tr>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Turkana</th>
<th>Ateso</th>
<th>Bari</th>
</tr>
</thead>
<tbody>
<tr>
<td>verb</td>
<td>na</td>
<td>beng</td>
<td>mameun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prefix</td>
<td>m-</td>
<td>na-; pe-; nyi-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>particle</td>
<td>mímè</td>
<td>mam</td>
<td>ti; tine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Otuho is similar to Lopit except that the negative verb, beng, has pronominal marking when used in the simple form. Thus abeng in (651) contrasts with [ɲá] in (639).

(651) Otuho a-beng dwo ni a-lo
      1SG-not.be IMM.PST 1SG 1SG-go
      ‘I didn’t go there.’ (Muratori, 1938, p. 339)

It is clear that clause-initial auxiliary /na/, ‘not be’, has significant verb characteristics and hence is more like an auxiliary verb than a particle. It shows similar behaviour to the Otuho negative verb. For these two languages (and possible Ateso) it might be better to say that they have an AUXSVO order for negative clauses rather than a SVO as described by Creissels et al (2008, p. 136).

7.8.2 The persistive form of the negative, /nei/

There is another form of negative which appears to be a variation of /na/, ‘not.be’. I am calling it the persistive negative auxiliary, /nei/, in contrast to the ‘unmarked’ negative auxiliary, /na/. An example is given in (652), where it is used as an auxiliary verb in combination with a verb having the persistive aspect (the persistive is discussed in section 6.4.3.5). The main verb [ɛlɛfənù] does not have the subordinate marker. In contrast to the auxiliary /na/, /nei/ has normal third person marking (i.e. /e-/ and not /i-/).
The whole construction in (652) could be considered to be a persistive construction and can be contrasted with (653), where the persistive form of the negative is not used. The [Ịná] auxiliary is used and the main verb has the subordinate marker, which is the unmarked (general) form of the negation construction (described above).

Another set of examples is shown in (654) and (655). They also illustrate the contrast between the negative auxiliary, /pa/, and the persistive negative auxiliary, /nei/. In (655), there is the normal pronominal marker /a/-, '1SG', on the auxiliary /nei/ and no subordinate marker on the main verb [álamátà] in the main clause.

It can also be used as a verbal noun, /nei/. As shown in (656), /nei/ can be translated as 'lacking', or 'not having'. The noun phrase [nei nà mòtèjà], 'lacking of friends', is the subject of the verb /mir/, 'defeat'. Note that the NP, which has absolutive case marking, precedes the verb and the verb is marked with the subordinate marker /l-/ . This is a fronted construction (see 7.2.3). This supports the view that /nei/ is a noun in this construction.
7.8.3 Negative imperatives

There is a special construction for negative imperatives. It involves the word /idek/ and a verb prefix /xai-/.

The prefix /xai-/ appears to be a kind of imperative prefix, similar to those in Table 6-15. Unlike normal imperatives (see section 6.6.1), there is no distinction between singular and plural. As shown in (658), the infinitive construction cannot be used.

(657) ídek xai-írò
NEG.IMP IMP-speak
‘Don’t talk!’  AD:36:40

(658) *idek x-írò
NEG.IMP INF-speak
(‘Don’t talk’)  AD:36:40

With Class II verbs (such as /ɪɾɔ/ in (657)), one can not determine whether the imperative prefix is /xai-/ or /xai-/. It is clear when a Class I verb is used, as illustrated with the verb /ca/, ‘dance’, in the following example.

(659) ídek xai-cá díxà
NEG.IMP IMP-dance like.that
‘Don’t dance like that!’  DW:45:36

A more complex example is shown in the following using the verb /isiere/, ‘give’. Note that the use of the second personal pronoun (in this case /tət/, ‘2PL’) is possible, but is not normally used.

(660) ídek xai-ísò (tət) nàŋ xíríŋɔ́
NEG.IMP NEG-give (2PL.ABS) 1SG.ABS meat.ABS
‘Don’t give me meat!’  EB:03:38

The word /idek/ can be glossed as the imperative form of the verb /idek/, ‘leave’ (i.e. as IMP.leave). The verb /idek/ can be translated as ‘abandon’, ‘leave off’, ‘give up’, ‘don’t do’ as illustrated in the following.

(661) a-ídék nàŋ ririŋà tìfì xìjò è-díxà nàŋ xíŋéxítì
1SG-leave 1SG.NOM VN.watch TV COMP 3-ache 1SG.ABS eyes
‘I gave up watching TV because it hurts (my) eyes.’  AH:01:26:14

The verb /idek/ can also be used in the sense of ‘move away from’ as in (662).
The use of a lexical negative verb with a meaning of ‘stop’ or ‘leave’ for a negative imperative (or prohibitive) is not uncommon in the world’s languages (Aikhenvald, 2010, p. 171). However, it might be unusual in Nilotic languages since negation is normally marked as a prefix on the verb, rather than using a negative verb construction like Lopit. Turkana uses a combination of the negative marker nyi- with the pronominal markers (instead of the affirmative imperative markers) on the verb. Maa uses a similar kind of construction (Tucker & Mpaayei, 1955, p. 75). Bari uses a particle ko, which is placed in front of the verb, to express the negative imperative (Spagnolo, 1933, p. 121). As mentioned above, Otuho uses a verb (beng, ‘not.be’) for negation. Nevertheless, Otuho uses a special negative imperative prefix xe- (Muratori, 1938, p. 199). In addition, Otuho uses a low tone on negative commands (in contrast to a high tone on positive commands) (Duerksen, 2004, p. 40). Thus, it appears that, among EN languages, only Lopit uses a lexical negative verb to express a negative imperative.

### 7.8.4 Negative interrogatives

Polar interrogatives are discussed in section 7.7.1 above. Negative polar interrogatives can be formed using the negative verb /ɲa/ together with the question marker /x-/.

A pair of affirmative and negative polar questions is given in the following.

(662) a-ídék náŋ xàŋ árá móíté?
1SG-leave 1SG.NOM home IMM.PST morning
‘I left home this morning.’ AH:01:28:48

The use of a lexical negative verb with a meaning of ‘stop’ or ‘leave’ for a negative imperative (or prohibitive) is not uncommon in the world’s languages (Aikhenvald, 2010, p. 171). However, it might be unusual in Nilotic languages since negation is normally marked as a prefix on the verb, rather than using a negative verb construction like Lopit. Turkana uses a combination of the negative marker nyi- with the pronominal markers (instead of the affirmative imperative markers) on the verb. Maa uses a similar kind of construction (Tucker & Mpaayei, 1955, p. 75). Bari uses a particle ko, which is placed in front of the verb, to express the negative imperative (Spagnolo, 1933, p. 121). As mentioned above, Otuho uses a verb (beng, ‘not.be’) for negation. Nevertheless, Otuho uses a special negative imperative prefix xe- (Muratori, 1938, p. 199). In addition, Otuho uses a low tone on negative commands (in contrast to a high tone on positive commands) (Duerksen, 2004, p. 40). Thus, it appears that, among EN languages, only Lopit uses a lexical negative verb to express a negative imperative.

Another example is given with the verb /wu/, ‘go’.

(665) x-ɔ́ɲà xàti 1-ıt:ɔ́ŋ à=xàŋ
Q-2-not.be but 1-ıt:go to=home.ABS
‘Aren’t you going home?’ EH:41:00

As discussed in section 7.7.1, the word /xɔ́ŋa/ is also used in tag questions, together with the adverb /ifa/. As mentioned there, word [xɔ́ŋa] could be glossed as ‘Q-?-not.be’, where the pronominal marker [ɔ] can be used for the first, second or third person. This is similar
to the /-/ in /ɪɲa/. In fact, the consultant stated that /xɪɲa/ is used instead of /xɔɲa/ in the Ngutira dialect, which supports this analysis.

7.8.5 Negative quantifiers and indefinites

Lopit does not have words which correspond to words like ‘nobody’, ‘nothing’, ‘nowhere’, or ‘never’. The equivalent meanings of these words are usually expressed using the negative verb /ɲa/ in combination with words like /nabo/, ‘one.F’; /xure/, ‘some.F’, /ɲai/, ‘who’ and /ɲo/, ‘what’.

For example, the Lopit translations of ‘no-one’ or ‘nobody’ can be expressed using the interrogative pronoun, /ɲai/, ‘who’, together with the negative verb /ɲa/. This can be used when the gender is unknown or if the referents include both males and females.

(666) i-ɲá ɲai tè=înf
not.be who in=here
‘There is no-one here.’ CN:08:12

If the gender of the referents is known, then the words /nabo/, /lobo/ can be used with the noun /toxoni/, ‘person’. In the following example, the quantifier is placed in front of the noun to give the phrase [lóbò tóxóni]. This is a pragmatically marked position since quantifiers normal follow nouns (see section 4.7). This gives special emphasis to the word /lobo/ so that the literal translation of (667) is ‘I think (that) not (even) one person is coming.’

(667) á-gíl náŋ i-ɲà lóbó tóxóni l-ò-lòt-û
1SG-believe 1SG.NOM not.be one.M person.NOM SBO-3-go-VEN
‘I think that nobody (M) is coming.’ EL:01:17:54

Some examples of expressions which are translations of ‘nothing’ and ‘no-one’ are also given in (648) and (649) above. Lopit expressions which are translations of ‘any’, ‘anybody’, and ‘ anyone’ can also involve the negative verb and these are discussed in relation to examples (121), (132), and (133) in section 4.6.2.3 on non-numeral quantifiers.

It should be noted the word /ɲa/ is used to answer a polar question in the negative. That is, it is equivalent to the English ‘no’ and is the opposite of /eː/, ‘yes’.

7.8.6 Lexical negatives

Lopit has a number of verbs which can express negative concepts without the use of the negative verb. These include the verbs /riŋ/, ‘not know’; /tumo/, ‘not know’, ‘be ignorant
of; /miŋa/, ‘not see’; and /diak/, ‘not complete’. Some examples are given for /riŋ/, /tumo/ and /miŋa/ in (668) to (670) respectively. Note that /tumo/ is a transitive verb.

(668) a-tumo náŋ ròrí xòná jànì inà
1SG-not.know 1SG.NOM things of.F.PL tree this.F
‘I don’t know anything about this tree.’ AX:45:48

(669) á-ríŋ mà náŋ
1SG-not.know POT 1SG.NOM
‘I’m not sure.’ (lit. I might not know’) 20130417:42:00

(670) é-xì-rwàtà xìjì íjé x-i-míñà-ri
3-PFV-escape and 2SG.NOM SEQ-2-not.see-IT
‘He escaped and you missed seeing it.’ DO9:01:59

7.8.7 /ɔlxɔŋa/, /ɛlxɔŋa/, ‘not yet’

There is a particular word /ɔlxɔŋa/, which includes the negative verb /ŋa/. It can be translated as ‘not yet’. This is illustrated in the following two examples.

(671) x-i-t:ɔxɔ íjé igɛm ñlɔɔŋa
Q-2-finish.PFV 2SG.NOM work.ABS not yet
‘Did you finish work?’ ‘Not yet.’ AC:1:16:24

(672) ñlɔɔŋa náŋ l-å-cá dè=tòrít
not yet 1SG.NOM SBO-1SG.PFV-dance at = Torit
‘I have not yet danced in Torit.’ BI:34:37

This word is sometimes expressed as [èlexĩnà], as illustrated in (673). This word could be glossed as /è-łó-xi-nã/, ‘3-PER-PFV-not.be’, which would support its interpretation as ‘not yet’ or ‘still not’ (the persistive marker /lV-/ is discussed in section 6.4.3.5).

(673) a-i-jì-jèn-à náŋ xìrò nà lòpít
1SG-PF-REDUP-know-IPFV 1SG.NOM VN.speakABS of.F Lopit
èlexĩnà xàtí náŋ l-a-i-jèn-à bínó
not yet but 1SG.NOM SBO-1SG.PFV-know very
‘I have been learning to speak Lopit but I have not yet learned much.’ DL:13:08

The verbal character of [ñlɔɔŋa] and [èlexĩnà] is demonstrated by the position of the main verb after the subject in both (672) and (673) and the use of the subordinate marker /l-/, (see discussion in section 7.8.1 above). Further confirmation comes from the nominative case
marking on the subject ([nàŋ] in (672) and the second clause in (673)). As discussed in section 7.3.5, nominative case marking is only observed after the verb. Both these words are often shortened to [ ámbàŋ] and [ ámbëŋà] respectively. The elision of the /x/ of the perfective prefix is common and is discussed in section 6.4.2.1 on the aspect marking of Class I(a) verbs.

It seems like the word [ ámbxàŋà] is some kind of variation of the word [ ámbëxëŋà], just as /xàŋa/ and /xëŋa/ appear to be variants (see section 7.8.4 above). One consultant suggested that [ ámbxàŋà] is generally used by Dorik speakers and that [ ámbëxëŋà] is more common amongst Ngutira speakers. This is supported by the work of Stirtz, who lists a range of vowel alternations among Lopit dialects (2014, p. 19). He gives the examples of dëµu, ‘knife’ for Dorik and dëµu, ‘knife’ for the Ngutira dialect.
Chapter 8 Expression of Property Concepts and Adverbial Notions

8.1 Introduction

This chapter discusses the various ways in which property concepts and adverbial notions are expressed. These ways include the use of adjectives, adverbs, verbs and nouns. For this reason, I use a separate chapter to describe them.

I discuss the expression of property concepts in section 8.2. As mentioned in section 3.3.4, there are very few words in Lopit which can be described as ‘true’ or ‘underived’ adjectives and adverbs. Most property concepts (i.e. modifiers of nouns) are expressed using property stative verbs in relative clause constructions. In addition, there are other ways of expressing property concepts. These include what I call ‘relativized adjectives’ and ‘gender coded adjectives’.

In section 8.3, I discuss the expression of adverbial notions. The classification of adverbial concepts is difficult (see, for example, Schacter and Shopen (2007, p. 19)). Sometimes adverbs are categorised as those lexical words which are not nouns, verbs or adjectives (T. E. Payne, 1997, p. 69). Adverbs are often used to add information on such things as time, location, degree and manner to the expression of an activity or state. That is, they are often used to modify verbs. There is a limited number of true adverbs in Lopit (although more than true adjectives) and the adverb class appears also to be a closed one. Adverbial notions in Lopit are often expressed in other ways, including the use of prepositional phrases, special stative verbs, ideophones and adverbial clauses. There is a particular adverbial clause construction which uses the word /ara/ with a relative clause (formed with a property stative verb) to express adverbial notions in a somewhat parallel way to property concepts. I call this the ‘general adverbial’ construction.

8.2 Property concepts

There are several different ways of expressing property concepts in Lopit. These include the use of property stative verbs, either in relative clauses to modify nouns or predicatively. There are a small number of what I call ‘true adjectives’, which can be used attributively. Some of these can also have verbal forms and also be used as nouns. There are constructions which I call ‘relativized adjectives’ and ‘gender-coded adjectives’ which do not use the relative clause construction but are distinguished from true adjectives in that they have some distinct coding.
8.2.1 Property stative verbs

As mentioned, the most common way of expressing property concepts in Lopit is through the use of stative verbs. These verbs can be used attributively in clauses to modify nouns or they can be used predicatively. I call them 'property stative verbs' to distinguish them from 'result state stative verbs' (as discussed in section 3.2.2 above). Lopit uses a relative clause construction for attribution as shown in (674).

\[(674)\] a-įjén nąŋ tòxòni lè l-ɛ-ìsáγá
1SG-know 1SG.NOM person.ABS REL.M SBO-3-be.tall

'I know a tall man.' (lit 'I know a man who is tall.') AV17:20

In (674), the relative clause containing the verb /ʦaga/, ‘be tall’, is used to modify (or specify a property of) the noun /tòxòni/, ‘person’. Note that the verb in the relative clause contains the normal Lopit prefix which agrees in person and number with the noun that the relative clause modifies. The relative clause also contains the relative pronoun (/le/, or /na/) and the subordinate marker (see also section 9.5 on the relative clause).

There does not seem to be a contrast between restrictive and non-restrictive (or definite and indefinite) for property verbs. In the following examples, there is no difference between ‘a red shirt’, /(gamis) na lɔdɔr/, in (675); and ‘the red shirt’, /gamis na lɔdɔr/, in (676). (See section 4.6.3 for more information on articles).

\[(675)\] a-įjeità nąŋ ɡàmísì àrik nà l-̃-dɔ̀ xɔ̀ nà l-ò-ɲɔ́rî
1SG-have 1SG shirts two REL.F SBO-3-be.red with REL.F SBO-3-be.green

'I have two shirts a red and a green.' BF:06:45

\[(676)\] iŋá nąŋ l-á-ɾɔ́mà ɡàmísì nà l-̃-dɔ̀
NOT.BE 1SG.NOM SBO-1SG-find shirts REL.F SBO-3-be.red

'I can’t find the red shirt.' BF:07:18

Most verbs used attributively are stative verbs (be good, be tall, be happy, etc.). Action verbs can also be used attributively as shown in (677).

\[(677)\] x-ì-wòlò Ĭjé xìtò nà l-ɛ-ìdɔ́lɔ̀
Q-2SG-see 2SG.NOM child.ABS REL.F SBO-3-sing

'Did you see the singing girl?' (lit ‘…girl who was singing’) AB:01:02

Property concept relative clauses can be strung together as shown in (678). The literal translation of the utterance is ‘the stone which is smooth which is green’.
Constructions such as [lɛɪsáɡá] in (674) and [lòɲóři] in (678) can be distinguished from nominal predicates in relative clauses. In the relative clause in (679), the copula verb /ra/, ‘be’, is required with the noun [xaitiːjénənɪ], ‘teacher’). In (674), the verb form [lɛɪsáɡá] does not require a copula.

Property stative verbs can also be used in relative clauses with possessive constructions as shown in (680) and (681).

As mentioned earlier, property stative verbs can also be used predicatively as shown in (682) to (684).

(682) á-múnɔ náŋ
1SG-be.happy 1SG.NOM
‘I am happy.’ AT:03:08

(683) ò-tøi xáf bi
3-be.dry ground.NOM indeed
‘The ground is dry.’ AU:58:17

(684) è-fí dòmì
3-be.sharp knife.NOM
‘The knife is sharp.’ AV:49:59
Property stative verbs can also have a range of different forms (including aspect and mood marking) like other verbs. Some examples are shown for the irrealis, persistive and perfective forms in Table 8-1.

<table>
<thead>
<tr>
<th>example</th>
<th>o-toi</th>
<th>e-ŋai-toi</th>
<th>o-lo-toi</th>
<th>e-xi-toi</th>
</tr>
</thead>
<tbody>
<tr>
<td>gloss</td>
<td>3-be.dry</td>
<td>3-IRR-be.dry</td>
<td>3-PER-be.dry</td>
<td>3-PFV-be.dry</td>
</tr>
<tr>
<td>English</td>
<td>‘is dry’</td>
<td>‘should be dry’</td>
<td>‘is still dry’</td>
<td>‘becomes dry’</td>
</tr>
</tbody>
</table>

The use of these kinds of verbal forms in languages has been described in different ways. Schachter and Shopen describe them as “adjectival verbs” (2007, p. 16). Dixon would classify /saga/ as a member of his “type (a) adjective class” in which “adjectives have similar properties to those of verbs” (2010b, p. 63). Bhat would describe them as ‘verbal particles’ which are used for predication and modification (2000, p. 49). Stassen has examined adjectives and distinguishes between those that are more like nouns (“nouny adjectives”) and those that are more like verbs (“verby adjectives”) (1997, p. 344). Thus, he would say that Lopit has verby adjectives.

The expression of property concepts with verbs in Lopit is not surprising given that it is a head-marked, aspect-oriented language. Dimmendaal states that “adjectives tend to pattern with nouns in dependent-marking languages and with verbs in head-marking languages” (2000, p. 219). Lopit is similar to Turkana which Dimmendaal describes as a “typical head-marking language with verb-initial structure” (2000, p. 218). Stassen has looked at the role of verbal systems such as tense and aspect in relation to adjectives. He proposed that, “if a language is non-tensed, it will have verby-adjectives” (1997, p. 357). As reported in section 6.1, Lopit is a non-tensed language, so this generalisation appears to hold for Lopit.

### 8.2.2 True adjectives

There are, however, a small number of words in Lopit which could be described as ‘true’ adjectives. A ‘true’ adjective is a word which can be used for attribution without any special coding40 (Haspelmath, 2012, p. 125; Hengeveld, 1992, p. 58). These are shown in Table 8-2. They are the only ones so far identified, apart from some colour terms (section 8.2.3.3). Gender-coded adjectives, which are discussed in section 8.2.3.2, could also perhaps be described as true adjectives, although they are only used to modify nouns referring to people.

---

40 ‘Special coding’ means derivational and/or lexical coding, but not inflectional coding.
Table 8-2: ‘True’ adjectives in Lopit

<table>
<thead>
<tr>
<th>adjective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>márwàni</td>
<td>mårwàk  ‘old’</td>
</tr>
<tr>
<td>njúk</td>
<td>njèjúxò  ‘new’</td>
</tr>
<tr>
<td>rúxólàni</td>
<td>rúxólàk  ‘smart’, ‘clever’</td>
</tr>
</tbody>
</table>

The Lopit roots for ‘old’ and ‘new’ can be used attributively to modify nouns as shown in (685). They can also be used as a predicate adjective as shown in the construction in (686).

(685) a tíjeítà náj bûk njúk
1SG-have 1SG.NOM book.ABS new.ABS
‘I have a new book.’ AV:21:44

(686) á-rá bûk ináj njúk
3-be book.NOM this.F new.ABS
‘This book is new.’ AV:23:41

The number marking is similar to the number marking of nouns with both plurative (/ŋɛɟʊk/, /ŋɛɟuxo/) and replacement (/marwani/, /marwak/) forms. (See section 4.3).

The number of these words appears to be quite limited. It could be that there has been a process in Lopit which is similar to Turkana where “more and more roots were used in a verbal sense, thereby gradually driving out real adjectives” (Dimmendaal, 1983b, p. 332).

These two main ways of expressing property concepts (i.e. property stative verbs and true adjectives) are common across Nilotic languages (Tucker & Bryan, 1966, p. 464). Table 8-3 shows a comparison of some adjectives and property verbs in Eastern Nilotic languages and demonstrates the lexical similarity, especially in the Lotuxo-Maa sub-group.

Table 8-3: Property concepts in Eastern Nilotic languages

<table>
<thead>
<tr>
<th>word class</th>
<th>Lopit</th>
<th>Otuho</th>
<th>Maa</th>
<th>Turkana</th>
<th>Ateso</th>
<th>Bari</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjective</td>
<td>mɔli</td>
<td>emoli</td>
<td></td>
<td></td>
<td>twö</td>
<td>‘black’</td>
<td></td>
</tr>
<tr>
<td>verb</td>
<td>rıoxo</td>
<td>ıryok, imoli rok</td>
<td>iryo</td>
<td>iryo</td>
<td>roj</td>
<td>‘be black’</td>
<td></td>
</tr>
<tr>
<td>adjective</td>
<td>bwor</td>
<td>bwor</td>
<td></td>
<td></td>
<td>kwe</td>
<td>‘white’</td>
<td></td>
</tr>
<tr>
<td>verb</td>
<td>bɔŋa</td>
<td>bɔŋ, bwor ibor</td>
<td>kwang</td>
<td>ekwang</td>
<td>‘be white’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adjective</td>
<td>marwak</td>
<td>marwak</td>
<td></td>
<td></td>
<td>moloŋ</td>
<td>‘old’</td>
<td></td>
</tr>
<tr>
<td>verb</td>
<td>imarwak</td>
<td>marwak</td>
<td>moruo</td>
<td>mojong</td>
<td>‘be old’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adjective</td>
<td>ɲɛjùk</td>
<td>ɲɛjùk</td>
<td>ɲɛjùk</td>
<td></td>
<td>ludukò</td>
<td>‘new’</td>
<td></td>
</tr>
<tr>
<td>verb</td>
<td>ɲɛjùk</td>
<td>ɲɛjùk</td>
<td>kitet</td>
<td>itet</td>
<td>‘be new’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The main differences in these languages appear to be in the number of true adjectives, which is quite limited in most of the languages. Tucker and Bryan state that “in Teso all Adjectives are really Adjectival Verbs” (1966, p. 464). Dimmendaal mentions that Turkana has a small number of true adjectives and that other property concepts are described using what he describes as “stative relative clauses”, in which a habitual marker and a stative marker are suffixed to the verb root (1983b, p. 332). According to Muratori, adjectives in Otuho are expressed almost exclusively by verbs using relative clauses (1938, p. 93). Otuho also has a small range of ‘true’ adjectives, which Muratori describes as “independent qualifying adjectives” (1938, p. 96).

Maa has a moderate but limited true adjective class (Tucker & Mpaayei, 1955) (“Maasai has more adjectives” than Turkana, (Dimmendaal, 1983b, p. 332)). They are marked for number but not gender. Tucker & Mpaayei list about 40 adjectives in their grammar and Payne and Kotikash list over 200 Adjective forms in their on-line Maa dictionary (2005). This indicates that the number of adjectives is larger than in Turkana and Otuho. Bari has two main types of adjectives, according to Spagnolo (1933). The first is called “true adjectives” and these can be used both attributively and predicatively. The second type is called “relative adjectives”, which uses a relative clause construction.

8.2.3 Other kinds of adjectives

8.2.3.1 ‘Relativized adjectives’

There are other ways of expressing property concepts. One of these uses what I call ‘relativized adjectives’. Examples of these adjectives are listed in Table 8-4. Their use is illustrated in (687) and (688).

<table>
<thead>
<tr>
<th>adjective</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
<td>plural</td>
</tr>
<tr>
<td>itiŋ°</td>
<td>small, young</td>
</tr>
<tr>
<td>xitːok</td>
<td>xitːoxa old, mature</td>
</tr>
</tbody>
</table>

(687) a-íétà náŋ buk le itiŋ° xɔ=buat nà xitːɔk
1SG-have 1SG.NOM book.ABS REL.M small with=book.ABS REL.F large
‘I have a small book and a large book.’
BG:38:00

(688) è-máŋá xíŋ° x̄nà xitːoxa dɛ=toʊn
3-reside people.NOM REL.F.PL old.PL in=town
‘The old people lived in the town.’
AW46:29

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The main difference from those adjectives in Table 8-5 is the use of the relative maker (or a word polysemous with it). The construction is not a relative clause since there is no subordinate marker prefix to the words /itiŋ/, ‘young, small, few’ and /xitoxa/, ‘old, mature, big’ and these words do not have the subject marker associated with verbs in a relative clause (see section 9.5.1 on relative clauses). These words do not appear to be able to be used as verbs (e.g. /*axitok naŋ/, AW53:46). They are provisionally described here as ‘relativized adjectives’.

This relativized adjective construction appears similar to that used in Lele (East Chadic, Afro-Asiatic) and other Chadic languages (Frajzyngier, 2001, p. 89). Frajzyngier describes it as a form of modification with a word that “otherwise functions as a relative marker” and which precedes the modifier.

(689) Lele ng gol kûlbá do bôròre
1SG see cow REL:F white
‘I saw the white cow.’ (Frajzyngier, 2001)

In Lele, this construction is only used for a specific object or event. The context for (689) is ‘I saw the white cow’ (from the set of others that the speaker believes the hearer knows) (Frajzyngier, 2001, p. 89). This does not appear to be the case for Lopit.

8.2.3.2 ‘Gender-coded adjectives’

Some property stative verb roots can be used as attributive adjectives. They show gender agreement and appear to be only used to modify nouns referring to people. An example is given for the verb /muta/, ‘be small’ in (690). More examples are given in Table 8-5. I call these ‘gender-coded’ adjectives. They differ from relativized adjectives described in the previous section in that they are not used with a relative pronoun and they show gender agreement.

(690) á-wôlô nàŋ xîtô ì-mûtà
1SG-see.PFV 1SG.NOM child.ABS F-small
‘I saw the small girl.’ BE:44:30

The relative clause construction using the property stative verb can also be used, as in (691).

(691) á-wôlô nàŋ xîtô nà l-ð-mûtà
1SG-see.PFV 1SG.NOM child.ABS REL:F F-small
‘I saw the small girl.’ BE:44:40
Table 8-5: Gender-coded adjectives from property verbs

<table>
<thead>
<tr>
<th>verb root</th>
<th>feminine</th>
<th>masculine</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪsaga</td>
<td>ɪsaga</td>
<td>ɪsaga</td>
<td>‘tall’</td>
</tr>
<tr>
<td>muta</td>
<td>imuta</td>
<td>lomuta</td>
<td>‘small’</td>
</tr>
<tr>
<td>golo</td>
<td>igolo</td>
<td>logolo</td>
<td>‘strong’</td>
</tr>
<tr>
<td>xalan</td>
<td>ixalan</td>
<td>lxalan</td>
<td>‘lazy’</td>
</tr>
<tr>
<td>mura</td>
<td>imura</td>
<td>lomure</td>
<td>‘smelly’</td>
</tr>
</tbody>
</table>

It should be noted that the masculine forms of these adjectives are not property verbs without the relative pronoun. This can be seen with the word /lɔsaga/, which is different to the word /lɛsaga/ in the property concept relative clause [lɛ̀lɛɪsáɣå], ‘who is tall’, which is given in example (674) above. In addition, the verb /ɪsaga/ is a Class II verb. However, it appears that close-front vowel is either elided or has coalesced in the word /lɔsaga/.

8.2.3.3 Colour terms in Lopit

There are two main ways of expressing colour terms in Lopit. They can be expressed as true adjectives or as stative property verbs. There are only a few colour terms in Lopit and these are shown in Table 8-6. The consultant expressed the view that, for the colour words, only the property verbs are “original Lopit and the others are borrowed, possibly from Lotuko” (AQ1:15:32). This is supported by the lists given by (Muratori, 1938, p. 100) which contain Otuho colour words very similar to the ‘adjectives’ in Table 8-6 (e.g. moli, boŋ, ryet for black, white and red). See Section 8.2.4 below for further discussion.

Table 8-6: Adjectives and verbs in Lopit expressing colour

<table>
<thead>
<tr>
<th>adjective</th>
<th>verb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪmɔl/ɔmɔle</td>
<td>e-rioxo</td>
<td>‘black’, ‘blue’ (F/M)</td>
</tr>
<tr>
<td>boŋ</td>
<td>o-bwor</td>
<td>‘white’</td>
</tr>
<tr>
<td>riet</td>
<td>ɛ-dɔ</td>
<td>‘red’</td>
</tr>
<tr>
<td>igara</td>
<td>o-ɲori</td>
<td>‘green’</td>
</tr>
<tr>
<td>?</td>
<td>e-xidan</td>
<td>‘brown’, ‘grey’</td>
</tr>
</tbody>
</table>

Some examples are given of colour terms expressed with true adjectives, as shown with /riet/, ‘red’, in (692) and a with property verbs, as shown with /dor/, ‘be red’, in (693).

(692) a-fjeftá náŋ gàmís riet
1SG-have 1SG.NOM shirt red
‘I have a red shirt.’ BF:08:30
The word /lɔmɔlɛ/, 'black', is unusual in that it has a singular and plural form and is marked for gender. The paradigm is shown in the following table.

Table 8-7: Forms of the adjective /mɔle/, 'black'

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>feminine</td>
<td>mɔli</td>
<td>mɔlɛxa</td>
</tr>
<tr>
<td>masculine</td>
<td>bɔmɔlɛ</td>
<td>bɔmɔlɛxɑ</td>
</tr>
</tbody>
</table>

The colour adjectives can also be used as relativized adjective as described in section 8.2.3.1 above and illustrated in the following.

(694) a-fjeʃtɑ̃  nɑŋ    xɨtɛŋ     ʃɔ̀  bɔŋ
1SG-have 1SG.NOM cow of.M white
'I have a white bull.'   BF:15:00

These true colour adjectives (e.g. /riɛt/, 'red') cannot be used as verbs, as shown in (695) and (696). It is worth noting that the colour adjectives in Otuho can also be used as verbs (Muratori, 1938, p. 99).

(695) a-fjeʃɛn  nɑŋ    tɔxɔnɪ     ʃɔ̀  lɔ-ɗɔ̀
1SG -know 1SG.NOM person.ABS REL.M SBO-3-be.red
'I know a man who is red.'   AV:18:13

(696) * a-fjeʃɛn  nɑŋ    tɔxɔnɪ     ʃɔ̀  lɛ-ɾiɛt
1SG -know 1SG.NOM person.ABS REL.M SBO-3-be.red
* 'I know a man who is red’   AV:18:13

8.2.3.4 Using nouns to express property concepts

There is a method of expressing property concepts which uses nouns. This is a construction of the form [noun... (that is)...like...noun] and can be regarded as a lexical rather than a morpho-syntactic method. This can be done using a relative clause with the word /aɾa/ (usually shortened to /a/) as shown (697). This appears to be related to the verb /aɾa/, ‘3-be’. Example (697) can be considered a translation of the English clause ‘I have yellow clothes’.

(693) e-ʃjeʃtɑ̃  ʃɛ  xɔfɪr    xɔ-nɑ  lɔ-ɗɔ̀
3-have 3SG.NOM hair.ABS PL-of.F SBO-3-be.red
'She has red hair.'   AZ:18:00
8.2.4 Notes on property concepts, word class and semantic types

It is worth noting that roots such as /ɾʊxʊ/, ‘clever’ and /marwak/, old’, /ŋɛɟʊk/, ‘new’, which can be used as true adjectives (e.g. in (685)), can also be found in a predicative construction, as in (698).

(698) ę-rúxʊl  īrāsɪ  leǐtɪ
3-be.clever  brother.NOM  my.M
‘My brother is clever.’ AQ:13:26

These roots can also be used as nouns without special coding. In these cases, they have the meaning of a referent who has the property of the root. The root /marwa/, ‘old’ can be used to indicate an old person or elder as shown in (699).

(699) ę-tɛx-ītɑ  márwâ-ni
3-walk-HAB  old-SG
‘The old person is walking slowly.’ DX:13:21

Property verbs can also be used as nouns (see also 4.5.2). Some examples are shown in Table 8-8 and one is illustrated in (700).

(700) i-ífijɑ  láṣagɑ
IMP-ask  tall man
‘Ask the tall one!’ CI:50:54

<table>
<thead>
<tr>
<th>Table 8-8: Nouns from property verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>verb</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>iṣaṣa lọṣaṣa iṣaṣa</td>
</tr>
<tr>
<td>bɑn̄ lọbɑn̄ ibɑn̄</td>
</tr>
<tr>
<td>boro lọbоро iboro</td>
</tr>
<tr>
<td>mутa lọmутa imутa</td>
</tr>
</tbody>
</table>

The behaviour of the different property concept roots in Lopit is summarized in Table 8-9. Some roots can be used as nouns, verbs and adjectives, whilst others have more limited uses.

This behaviour can be discussed in relation to the concepts of Hengeveld and of Haspelmath. They say the ‘true’ adjectives can be distinguished in that they are used for modification
“without further measures” (Hengeveld, 1992, p. 58) or for “attribution without special coding” (Haspelmath, 2012, p. 125). They use this methodology to establish prototype word-classes based on roots (as opposed to stems or words). It is possible to distinguish nouns (thing-roots), verbs (action roots) and adjectives (property roots) on the basis of how they tend to behave in the three major propositional-act types of reference, predication and attribution. This is shown in Table 8-10 for English. The shaded cells in Table 8-10 show expressions with no extra function-indicating coding (i.e. uncoded), whereas the other cells have some kind of overt marking (given in bold).

<table>
<thead>
<tr>
<th>property concept roots</th>
<th>English property stative verb</th>
<th>true adjective</th>
<th>relativized adjective</th>
<th>gender coded adjective</th>
<th>noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>marwa</td>
<td>‘old’</td>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>yes</td>
</tr>
<tr>
<td>isaga</td>
<td>‘tall’</td>
<td>yes</td>
<td>-</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>golo</td>
<td>‘strong’</td>
<td>yes</td>
<td>-</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>dɔ</td>
<td>‘red’</td>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td>riet</td>
<td>‘red’</td>
<td>-</td>
<td>yes</td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td>xitok</td>
<td>‘old’ ‘big’</td>
<td>-</td>
<td>yes</td>
<td>-</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 8-9: Behaviour of different property concept roots in Lopit

We can construct something similar for some of the roots in Lopit. We can see in Table 8-11 that the root /ŋɛɟʊk/, ‘new’) can be used “without special coding” (i.e. without derivational or syntactic coding) to form the three major propositional-act types of reference, predication and attribution. Thus, it could be said that roots like /ŋɛɟʊk/ and /marwak/ could be described as true nouns, true verbs and true adjectives.

<table>
<thead>
<tr>
<th>reference</th>
<th>predication</th>
<th>attribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>(that) is water</td>
<td>(colour) of water</td>
</tr>
<tr>
<td>the runn-ing</td>
<td>(it) RUN (-s)</td>
<td>runn-ing (water)</td>
</tr>
<tr>
<td>The wet-ness</td>
<td>(water) is wet</td>
<td>WET (water)</td>
</tr>
</tbody>
</table>

Table 8-10: Roots and propositional-act types (Haspelmath, 2012, p. 125) based on (Croft, 2000)

<table>
<thead>
<tr>
<th>reference</th>
<th>predication</th>
<th>attribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ŋɛɟʊk/</td>
<td>e-ŋɛɟʊk</td>
<td>ŋɛɟʊk</td>
</tr>
<tr>
<td>new.SG</td>
<td>3-is.new</td>
<td>3SG new</td>
</tr>
<tr>
<td>‘new (thing)’</td>
<td>‘it is new’</td>
<td>‘new’</td>
</tr>
</tbody>
</table>

Table 8-11: Propositional types for the root /ŋɛɟʊk/
Some examples for the root /ŋɛɟʊk/ for these three types are shown in following three examples: as reference in (701); as predication in (702); and as attribution in (703).

(701) á-wóló náŋ ɳɛ́ɟʊk nà xàjít
1SG-see 1SG.NOM new.ABS of.F houses.ABS
‘I see the newest house (lit. the new of houses).’ BA:19:39

(702) ė-ŋɛ́ɟʊk bůk ɪn:áŋ
3-be.new book.NOM this.F.NOM
‘This book is new.’ AV:23:23

(703) á-rá xáji nâŋî ɳɛ́ɟʊk
3-be house.NOM our.F.NOM new
‘Our house is new.’ AZ:28:00

I have also examined the semantic nature of the various forms expressing property concepts using the thirteen semantic types associated with adjectives poposed by Dixon (2004, p. 3). These are shown in Table 8-12.

Table 8-12: Lopit examples of Dixon’s semantic types of property concepts

<table>
<thead>
<tr>
<th>type</th>
<th>English</th>
<th>Lopit examples</th>
<th>Lopit word class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 dimension</td>
<td>big, small</td>
<td>isaga (be.tall), bɔ̀ (be.big)</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i-saga, lɔ-saga (tall.F, tall.M)</td>
<td>gender-coded adjective</td>
</tr>
<tr>
<td>2 age</td>
<td>old, new</td>
<td>marwa-ni (old-SG), marwa-k (old-PL)</td>
<td>true adjective</td>
</tr>
<tr>
<td></td>
<td>old</td>
<td>imarwak (be.old)</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td>young, mature</td>
<td>itiŋ (young), xitːo-k (mature-SG)</td>
<td>relativized adj.</td>
</tr>
<tr>
<td>3 value</td>
<td>good, bad</td>
<td>liba (be.good) ru (be.bad)</td>
<td>verb</td>
</tr>
<tr>
<td>4 colour</td>
<td>black, white</td>
<td>rioxo (be.black), bwor (be.white)</td>
<td>verb</td>
</tr>
<tr>
<td>5 physical property</td>
<td>hard, dry, sick</td>
<td>toi (be.dry), mwei (be.ill)</td>
<td>verb</td>
</tr>
<tr>
<td>6 human</td>
<td>jealous, kind</td>
<td>munei (be.happy)</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td>peaceful</td>
<td>boliŋ (peaceful)</td>
<td>??</td>
</tr>
<tr>
<td></td>
<td>clever</td>
<td>ruxula-ni (clever-SG)</td>
<td>true adjective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iruxul (be.clever)</td>
<td>verb</td>
</tr>
<tr>
<td>7 speed</td>
<td>fast, slow</td>
<td>feja (be.fast)</td>
<td>verb</td>
</tr>
<tr>
<td>8 difficulty</td>
<td>easy, hard</td>
<td>gol, (be.hard)</td>
<td>verb</td>
</tr>
<tr>
<td>9 similarity</td>
<td>like, different</td>
<td>icela, (be.the.same)</td>
<td>verb</td>
</tr>
<tr>
<td>10 qualification</td>
<td>definite, normal</td>
<td>sam (be.rich)</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td>rich</td>
<td>luŋa (be.many)</td>
<td>quantifier</td>
</tr>
<tr>
<td>11 quantification</td>
<td>whole, many</td>
<td>daŋ (all)</td>
<td>quantifier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>luŋa (be.many)</td>
<td>verb</td>
</tr>
<tr>
<td>12 position</td>
<td>high, near, right</td>
<td>rexo (be.near)</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ixạjén (left), xọtọŋ (right)</td>
<td>true adjective</td>
</tr>
<tr>
<td>13 cardinal numbers</td>
<td>one, two</td>
<td>lo-/na-boite (one), loxorik (two)</td>
<td>quantifier</td>
</tr>
</tbody>
</table>
Dixon states that the first four types in this table are “core semantic types, which are typically associated with both large and small adjective classes” (2004, p. 3). He also states that the adjectives of languages with a small adjective class are likely to belong to the core types (2010a, p. 114). Note that Dixon is...“for the most part, concerned just with morphologically simple roots, not with derived stems” (2004, p. 2). These are what I am describing as ‘true’ adjectives.

However, the true adjectives in Lopit are not predominately found in the core semantic types. They are distributed across a range of semantic types. As seen in Table 8-12, the various forms of expressing property concepts are distributed across the different semantic types. There does not appear to be any relationship between semantic type and the form in which the property concept is expressed.

Most property verbs (stative verbs) appear to be Class I verbs. This may be related to the hypothesis that the initial high front vowel of Class II verbs originated as a causative marker (see section 5.2.1), so that this class in less likely to include stative, intransitive verbs.

### 8.2.5 Modification of degree

Lopit has ways of conveying the comparative or superlative, but does not use inflection to do this. One way to make a comparison is to use a stative verb expressing the property under comparison, together with the two entities being compared. Thus in (704), the first-named item ([xájí náŋfü, ‘my house’] has more of the property described by the (property stative) verb (/bɔɾɔ/, ‘be big’) and is the subject of the verb. The entity which is compared less favourably is in a prepositional phrase [táxɔ̀ xájí nà tô ['from my house’. The literal translation is ‘his house is big from my house’. A similar example is given in (705).

(704) ə-bɔrɔ xájí náŋfü táxɔ̀ xájí nà tô
3-be.big house.NOM his.F from house.ABS my.F
‘His house is bigger than mine’ AX:49:23

(705) e-íságá lɔxirdŋə táxɔ̀=mɔtɛ́ lità
3-be.tall Lohidong.NOM from=friend.ABS my.M.ABS
‘Lohidong is taller than my friend.’ CM:13:53

A superlative can be expressed using the nominal form of a true, relativized or gender-coded adjective which encodes the property concept under discussion. The group of entities of which the superlative is a member is expressed in a prepositional phrase. An example is given with the true adjective /ŋəjok/, ‘new’, and the prepositional phrase [nà xájí], ‘of houses’, in (706). In this construction, /ŋequk/ is a noun (see section 8.2.4 and Table 8-11) and the utterance can be translated literally as ‘I see the new one of the houses.’
A second example is given with the nominal form gender-coded adjective /ɪbɔɾɔ/, ‘F.big’, in (707). Gender-coded adjectives are discussed in section 8.2.3.2 and listed in Table 8-5. This utterance can be translated literally as ‘I see the big one of the trees’.

In addition, Lopit is able to modify some adjectives and property verbs to indicate a gradation or similarity such as reddish, blackish. It only appears possible with colours (i.e. with both true adjectival colours (/ɪmɔl/, ‘black.F’) and property stative verb colours (/riok/, ‘be.black’). The itive suffix is used and this kind of construction appears to be another application of the ventive/itive used as the inchoative. As discussed in the section 5.4.5, the ventive and the itive can have quite broad meanings in Lopit (and other Nilotic languages). These meanings can express the inchoative (see section 6.4.4). Thus, the verb /lodoriei/ can be interpreted as ‘changing towards red’.

There is an alternative interpretation of this suffix. It could be termed a simitative suffix (SIM - see Haspelmath and Buchholz (1998, p. 277)). However, given the strong connection between the ventive/itive and the inchoative, it does not make sense to regard it as a separate suffix.

This suffix cannot be used with an adjective like /ŋɛɟʊk/, ‘new’ or /marwak/, ‘old’. Nevertheless, Lopit has another way of coding this concept. The verbal form of these property concepts can be marked to indicate resemblance. In these cases, the prefix /i-/ is
used, which can be interpreted as an example the inchoative using the perfective marker /(x)i-/. I call this Inchoative 1, as discussed in section 6.4.4.2.

(711) ẹ-ŋɛjok xáji ínãŋ
3-be.new house.NOM this.F
‘This house is new.’ AZ:38:47

(712) e-ŋɛjok xáji ínãŋ
3-PFV-be.new house this.F
‘This house looks new.’ AZ:38:23

This process can also be used for nouns. The word /meron/, ‘enemy.SG’ is normally a noun, as shown in (713) (the plural is /merok/).

(713) á-rá tôxóni ìlè mérònì lìti
3-be person.NOM that.M enemy.ABS my.M
‘That man is my enemy.’ AZ:41:59

According to the informant, it is generally not possible to use /meron/ or /merok/ as a verb. The following utterance was considered unacceptable.

(714) *e-méròk tôxóni ìlè dè=nàŋ
3-be.enemy person.NOM that.M to=1SG.ABS
*‘That man is an enemy to me.’ BA:31:37

However, if a speaker wants to suggest that someone is like an enemy, he or she can use the construction in (715). The word /merok/ can be used as a predicate in this situation and the perfective prefix /(x)i-/ is used to indicate resemblance through change. It might be regarded as an inchoative construction (‘That man has become an enemy to me’; see section 6.4.4.2. It might also be some kind of verbalizer.

(715) e-î-méròk tôxóni ìlè dè=nàŋ
3-PFV-be.enemy person.NOM that.M to=1SG.ABS
‘That man is like an enemy to me.’ AZ:41:59

Another example of this construction was noted from a different speaker in a different session. It involved the verb /mejaka/, which can be translated as ‘know’ in the sense which includes know how to do something competently (it is a Otuho loan word translated as ‘be able’ (Muratori, 1948, p. 1)). It is accompanied by an infinitive (or verbal noun). Example (716) indicates that Ibalala dances well. The informant said that subsequent utterance, (717), indicates that Ibalala can dance but, for example, does not get the timing right. It can also be
interpreted as an perfective-derived inchoative, which can be translated as ‘Ibala is getting to know dancing’ (see section 6.4.4).

(716) è-meįjåk ɪbálá cà
3-know Ibala.NOM dancing.VN
‘Ibala dances well (lit. Ibala knows dancing).’ 20140525-2:01:09:48

(717) e-i-meįjåk ɪbálá cà
3-PFV-know Ibala.NOM dancing.VN
‘Ibala dances moderately well.’ 20140525-2:01:09:48

There is another way of qualifying property concepts in Lopit. This involves words that could be described as qualifiers. These appear to be ideophones or are derived from ideophones (see Table 3-1 in section 3.2.3 on ideophones). These words can be used to qualify colours as shown in (718) and (719). It appears they can only be used with specific colours (e.g. /biŋ/ can only be used with ‘white’, i.e./*odor biŋ/, *pure red).

(718) o-bor biŋ
3-be.white pure
‘(It is) very (pure) white.’ AV:40:51

(719) o-bor cwal
3-be.white grey
‘(It is) grey white.’ AV:41:29

Another example of this kind of qualifier is /tir/, ‘dark’, which is used in the following example as an intensifier for the verb /riok/, ‘be dark’. The word /tir/ presumably comes from the ideophone /tir tìr/, ‘dark’ (see Table 3-1 in section 3.2.3 on ideophones).

(720) è-riok tìr
3-be.dark dark
‘It’s very dark.’ AV:40:18

8.3 Adverbial notions

There are several ways of expressing adverbial notions in Lopit. There is a limited range of underived or ‘true’ adverbs. These adverbs can express temporal reference, location, manner and degree and they are discussed in the next section, 8.3.1.
There are some prepositional phrases which express adverbial notions. These are presented in section 8.3.2. Lopit also uses ideophones to express adverbial notions. These are discussed in section 8.3.3.

Many adverbial notions are expressed using stative verbs in a main clause construction, where it is the verb which conveys the adverbial notion of time or location. These are discussed in the section 8.3.4.

Adverbial clauses are also used to express adverbial notions. Lopit has a range of these, including temporal, locative, manner and conditional clauses. A brief overview is given in section 8.3.5 below and they are discussed in detail in Sections 9.6 and 9.7 of the chapter on clause combining constructions.

It appears that, like Lopit, other Eastern Nilotic languages has a limited range of temporal and locative adverbs and also utilises prepositional (adverbial) phrases as well as verbal constructions to express adverbial concepts. This applies to Otuho (Muratori, 1938, p. 323); Maa (Tucker & Mpaayei, 1955, p. 43); Ateso (Barasa, 2017, p. 138); and Turkana (Dimmendaal, 1983b, p. 358). In addition, in common with many African languages, ideophones are often used to express adverbial concepts in Eastern Nilotic languages (see section 3.2.3).

8.3.1 Underived adverbs

Overall, there are not many underived (or true) adverbs in Lopit. The following sections list the adverbs identified and groups them as adverbs of time, location, degree and manner.

8.3.1.1 Adverbs of time

There are a number of adverbs which are mostly used to indicate the time reference with verbs. These are listed in Table 8-13. As discussed in section 6.3, there is no grammatical tense in Lopit and often the temporal situation is expressed with these adverbs. These adverbs are normally placed directly after the verb, although they can be placed after the subject (see the discussion on (283) and (284)).

<table>
<thead>
<tr>
<th>adverb</th>
<th>description</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isó</td>
<td>future</td>
<td>‘in the future’</td>
</tr>
<tr>
<td>Àrá</td>
<td>immediate past</td>
<td>‘this morning’, ‘earlier’</td>
</tr>
<tr>
<td>Półé?</td>
<td>recent past</td>
<td>‘yesterday’, ‘a few days ago’</td>
</tr>
<tr>
<td>Ifá</td>
<td>past</td>
<td>‘in the past’</td>
</tr>
</tbody>
</table>
Some examples for [ífá], 'in the past'; [ísó], ‘in the future’; and [àrá], ‘immediate past’, ‘earlier’ are given in (721) and (722).

(721) ı-jó ifá ijé xîjó ci-lwák isó ijé nànj
2-say.N PST 2SG.NOM COMP 2 > 1.LOG-help.N FUT 2SG.NOM 1SG.ABS
‘You said that you will help me.’ DF:06:19

(722) á-xójá-rí àrá nànj mógò
1SG-collect-IT IMM.PST 1SG.NOM fruit
‘I collected fruit (earlier).’ DO:12:00

There are a small number of other adverbs of time. These are listed in Table 8-14. The are distinguished from the adverbs in Table 8-13 in that they occur in a greater variety of positions in the clause (e.g. clause finally). Some examples are given in (723) and (724) using [âiná], ‘today’, [bèrén], ‘early’ and [ŋɔ̀lɛʔ], ‘yesterday’. Note that [ŋɔ̀lɛʔ] is used both as a temporal reference adverb, where it can refer to a period in the two or three days before yesterday (Table 8-13) and as the more specific ‘day before today’ (Table 8-14).

<table>
<thead>
<tr>
<th>adverb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bèrén</td>
<td>‘before’, ‘in the past’, ‘early’</td>
</tr>
<tr>
<td>ijànà</td>
<td>‘now’</td>
</tr>
<tr>
<td>âiná</td>
<td>‘today’</td>
</tr>
<tr>
<td>móitéʔ</td>
<td>‘tomorrow’</td>
</tr>
<tr>
<td>xôtúb</td>
<td>‘for long’, ‘too long’</td>
</tr>
<tr>
<td>îfâ</td>
<td>‘finally’, ‘at last’</td>
</tr>
</tbody>
</table>

(723) ıɲá nànj l-á-wák x-ìràm âiná
not.be 1SG.NOM SBO-3-want INF-play today
‘I don’t want to play today.’ AW:45:14

(724) á-lót-ù nànj à = îgèm bèrén ɲɔ̀lɛʔ?
1SG-go-VEN 1SG.NOM to = VN.work early yesterday
‘I got to work early yesterday’. BB:01:02:00

Note also that the word [îfâ], ‘finally’, is used differently to [ífá], ‘PST’. It can be translated as ‘finally’ or ‘at last’, rather than indicating a temporal location in the past (as shown in (721)). Two examples follow.

(725) ıɲóp-ù îfâ na xitók
IMP.push-VEN finally of.F large
‘Roll the biggest one at last!’ CP:18:43

Table 8-14: Other adverbs of time
There are a limited number of location adverbs. These are listed in Table 8-15.

Table 8-15: Adverbs of location

<table>
<thead>
<tr>
<th>adverb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ínì</td>
<td>'here'</td>
</tr>
<tr>
<td>dá</td>
<td>'there'</td>
</tr>
<tr>
<td>dèdè</td>
<td>'over there', 'away'</td>
</tr>
<tr>
<td>tèŋ, tèré</td>
<td>'there'</td>
</tr>
</tbody>
</table>

Some examples are given in (727) and (728) using /ínì/, 'here' and /da/, 'there’. Note that these words are different from the spatial (deictic) demonstratives, such as /inːaŋ/ ‘this.F’, 'here.F’, which are discussed in section 4.6.4.1 in the Noun Phrase chapter.

(727) à-rá isó xiŋà lɔbɔːtɔí x-á-wú ifà nàŋ x-ísòk
3-be FUT year one.M SEQ-1-go finally 1SG.NOM INF-finish.PFV
'I've got one year before I finish.' (lit. 'It will be one year and at last I go and finish."
CT:01:02:02

8.3.1.3 Adverbs of degree

There are a number of adverbs of degree (or quantifiers) that code quantification. A list is given in Table 8-16. These kinds of adverbs are generally placed at the end of the clause.

Table 8-16: Adverbs of degree

<table>
<thead>
<tr>
<th>adverb</th>
<th>English</th>
<th>adverb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>binòʔ</td>
<td>‘very’, ‘much’</td>
<td>fúr</td>
<td>‘all’</td>
</tr>
<tr>
<td>nóʔ</td>
<td>‘a lot’</td>
<td>kūlú</td>
<td>‘all’</td>
</tr>
<tr>
<td>kafʔ</td>
<td>‘a bit’</td>
<td>xàxí</td>
<td>‘alone’</td>
</tr>
<tr>
<td>dàŋ</td>
<td>‘also’, ‘too’</td>
<td>bi</td>
<td>‘indeed’</td>
</tr>
</tbody>
</table>

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The word /binoʔ/ is an intensifier and is usually translated as ‘very’ or ‘much’. It is often used to qualify a verb. This can be in a main clause (as in (729)) or in a relative clause (as in (730)). It is a combination of /bi/, ‘indeed’, ‘so’ and /noʔ/, ‘a lot’. Sometimes they are pronounced as a single word and, on other occasions, particularly for emphasis, they are pronounced separately.

(729) ьтеɛ хати нанɬ лайɛn бинóʔ
    not yet but 1SG.NOM SBO-3-know much
    ‘But I have not yet learned much.’ DL:14:00

(730) ɪ-ɪró ɛjɛ ɛŋls ɬà ɛn ɛ-ɬfbá бинóʔ
    2-speak.IPFV 2SG.NOM English like REL.F SBO-3-be.good much
    ‘You speak very good English.’ AL:01:10:25

The word /binoʔ/ can be separated from the verb it qualifies, as illustrated in the following.

(731) ɛ-ɬfbá ɭɨɾfjá ɭa бинóʔ
    3-be.good food.NOM that.F much
    ‘That food was very good.’ AL:22:45

The morpheme /noʔ/ is often used as an intensifier, both by itself and with /bi/. There is a increase in intensity as one goes from [nóʔ], [bi nóʔ], [bi nóʔ nóʔ] to [bi nóʔ nóʔ nóʔ].

(732) ɛ-dɪɾx nó ɛ-dɪɾx ɬi nó ɛ-dɪɾx ɬi nó nó ɛ-dɪɾx ɬi nó nó nó
    3-ache a lot 3-ache very 3-ache very much 3-ache very much much
    ‘it hurts a lot’ ‘it hurts very much’ ‘it really hurts a lot’ ‘it is extremely painful’ DW:25:39

The word /kaʔ/ can be regarded as an antonym of /binoʔ/ and is translated as ‘a bit’, ‘not very much’.

(733) ɛ-saɪ ɜafʔ ɬaɪʔ
    3-rain rain.NOM bit
    ‘It's raining a bit.’ DJ:47:36

The word /daŋ/ can be translated as ‘too’, ‘also’, ‘as well’.

(734) eɪ-fwó ɬ=ɬʊbá x-oi-fwó ɬ=ɬɔ̀ɬɪt ɬaŋ
    1PL-go.PL to=Juba SEQ-1PL-go.PL to=Torit also
    ‘We are going to both Torit and Juba’
    (lit. ‘we are going to Torit and are going to Juba also’) CZ:01:07:01

The word /bi/ indicates some kind of emphasis. Some examples are given in (735) to (737). It is used to indicate that something is now happening or has just begun. It can often be
translated as ‘indeed’ or ‘just’ or ‘now’. It is often optional; i.e. speakers say that you can leave it out without making a lot of difference.

(735) x-o-ígém-à ínêjá þà dà 5-rómù bì
Q-3-do-IPFV 3SG.NOM what there 3-dig. IPFV indeed
‘What is he doing there? He’s digging.’ BR:23:56

(736) e-i:jó xítò bì xàjó mông é-xi-jórià (bi)
3-cry. IPFV child.NOM indeed and.then father.NOM 3-PFV-be.angry indeed
‘The child is crying and the father is getting angry.’ BZ:15:13

(737) á-ŋèr-ú nàŋ bi à ínì
1SG-run.PFV-VEN 1SG.NOM indeed to here
‘I came here running.’ CN:01:10:46

As indicated above, /bi/ can be combined with /noʔ/, ‘a lot’, to form the expression / binoʔ/, ‘very’, ‘much’.

8.3.1.4 Adverbs of manner

There are some underived adverbs that are used to describe the way that something is done. Two examples are listed in Table 8-17. They are illustrated in (738) and (739).

<table>
<thead>
<tr>
<th>adverb</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>díxà</td>
<td>‘just’, ‘so’, ‘like that’</td>
</tr>
<tr>
<td>tjí</td>
<td>‘like this’</td>
</tr>
</tbody>
</table>

(738) a-ígém nàŋ tjí
1SG-work.N 1SG.NOM like this
‘I do it like this.’ DW:06:59

(739) ídék xài-cá díxà
NEG.IMP IMP-dance like that
‘Don’t dance like that!’ DW:07:37

8.3.1.5 Other adverbs

The morpheme /ma/ can be described as an epistemic adverb expressing likelihood and is used as one of the ways of indicating potential or possibility. It is often used with the modality prefixes /ma-/, ‘potential, POT’ or /ŋai-/, ‘irrealis, IRR’, which are discussed in section 6.5. However, it can also be used with indicative verbs as shown in the following with the verb /j:ɛI/, ‘die’.

260
There are a number of prepositional phrases which express adverbial notions. Notions like the equivalent of ‘before, ‘after’, ‘always’ can be expressed using prepositional phrases as shown in Table 8-18.

Table 8-18: Some prepositional phrases of location, movement and time

<table>
<thead>
<tr>
<th>preposition</th>
<th>PP</th>
<th>literal English</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dɛ́ xɪtɛ́mì (nà)</td>
<td>at front (of)</td>
<td>‘before’</td>
</tr>
<tr>
<td>te (‘with’)</td>
<td>tɔ̀ xɔ̀lɔ́nɪʔ</td>
<td>with days</td>
<td>‘always’, ‘everyday’</td>
</tr>
<tr>
<td></td>
<td>tɔ̀ xɔ̀lɔ́nɪʔ dάŋ</td>
<td>with days all</td>
<td>‘everyday’</td>
</tr>
</tbody>
</table>

For example, the phrase [tɔ̀ xɔ̀lɔ́nɪʔ], ‘with days’, can be translated as ‘always’, ‘everyday’, ‘all the time’.

(741) ɛ́-iʃɪjɔ́ ɪɲɛ́ tɔ̀=xɔ̀tɔ́nɪ tɔ̀ xɔ̀lɔ́nɪʔ
3-think.IPVF 3SG.NOM with=mother.ABS with days
‘He’s always thinking about (his) mother’. CA:01:00:28

Some locational prepositional phrases can also have extended meanings. For example, in (742), the phrase [dɛ́ xɛ́lʊ́ʔ], ‘at back’, expresses the concept of ‘after’ (through the SPACE=TIME metaphor).

(742) é-ŋà-tóxɔ̀-i ɪcɛ́já dάŋ dɛ́=xɛ́lʊ́ʔ nà xɔ̀tɔ́nɪ xɔ̀nɑ́ɛ́cɛ
3-PFV-kill-VEN 3PL.ABS all at=back of.F mother.ABS their.F.ABS
‘He killed all of them, after their mother.’ Squirrel and elephant story

It is possible to regard the phrase /iʃja leime/, ‘like a lion’ as a prepositional phrase which modifies the verb /ribo/, ‘fight’ in the following example.

(743) ɛ́-riʃɔ̀ ɪɲɛ́ iʃja lɛ́ɪmè
3-fight 3SG.NOM like lion.ABS
‘He fights like a lion.’ AZ:35:00

Prepositional phrases are also used for directions, including points of the compass. The expressions for the major compass directions are shown in Table 8-19.
Table 8.19: Cardinal directions

<table>
<thead>
<tr>
<th>Lopit</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>xídè</td>
<td>‘north’, ‘top’, ‘upper part’</td>
</tr>
<tr>
<td>wòr</td>
<td>‘south’, ‘valley’, ‘riverbed’</td>
</tr>
<tr>
<td>leidọpọ̀rì nà xëlọ́ŋ</td>
<td>‘east’, (lit. ‘place of rising of sun’)</td>
</tr>
<tr>
<td>lọcọ́rì nà xëlọ́ŋ</td>
<td>‘west’, (lit. ‘place of setting of sun’)</td>
</tr>
</tbody>
</table>

The prepositional phrases in the following example, [à kál lè xídè], ‘to the side of north’, modify the verb /wu/, ‘go’.

(744) í-wú à = kál lè xídè
      IMP-go to = side of.M north
      ‘Go northwards!’ DX:19:25

Prepositional phrases using verbal nouns can be used in situations where an adverbial phrase might be used. The following example contains the phrase [tè lọlọtìnì nàtí à mèlbèn], ‘from my coming to Melbourne’. This phrase does not change the basic word or order of the clause (VSOL), [aǐbọ́nj nàj xó xìjó xônà lòlúŋà] and no subordinating or sequential marker is used.

(745) tè lọlọtìnì nàtí à = mèlbèn
      from VN.come my.F to = Melbourne
      a-ìbọ́nj nàj xó = xìjó xôná 1-3-lóŋà
      1SG-meet 1SG.NOM with = people.ABS PL.REL.F SBO-3-be.many
      ‘Since coming to Melbourne, I met many people.’ AD:01:22:19

(746) ì-mùnó ínc lèfè tè = leibárijè nànjì? a mèlbèn
      3-be.happy 3SG.NOM until from = VN.arrive his.F to Melbourne
      ‘He has been happy since his arrival in Melbourne.’ CL:18:52

Other Eastern Nilotic languages also have a limited range of temporal and locative adverbs and utilise prepositional (adverbial) phrases to express adverbial concepts. This applies to Otuho (Muratori, 1938, p. 323); Maa (Tucker & Mpaayei, 1955, p. 43); Ateso (Barasa, 2017, p. 138); and Turkana (Dimmendaal, 1983b, p. 358).

8.3.3 Adverbials with ideophones

In common with many African languages, Lopit uses ideophones to express adverbial notions. These are usually used to express the manner of the action. Ideophones are discussed in section 3.2.3. In that section, I distinguished between ideophones and adverbial ideophones. Ideophones were defined as ‘marked words that depict sensory imagery’ (Dingemanse, 2012, p. 655). These are generally used in specific situations; that is, the use
of an ideophone is restricted to a special situation such as the rolling of stones, flames rising in a fire, or shaking dust from one’s body. I described adverbial ideophones as words which are used in ways similar to adverbs. For example, they can be placed in different positions in the clause and can be used to modify a wide variety of verbs.

An example is given in (747) with the ideophone /gaː/, where it is used to qualify the verb /lot/ ‘walk’.

(747) ò-lót ɪɲɛ  gà:  à=xàŋ
 3-walk 3SG.NOM slowly to=village
  ‘He walked slowly to the village.’ AR:01:30:48

8.3.4 Adverbials with stative verbs

Lopit has a very broad range of stative verbs and some of them can express adverbial concepts very clearly. The following two examples use the verb /bera/. It is a verb which expresses that an event occurred sometime in the past. The verb /bera/ is difficult to translate. One could use the expression ‘has been a long time’ or ‘has been in existence a long time’. It is used with a subject (here, the nominative form of the pronoun [ɪɲɛ]) and always requires a verbal noun or infinitive.

(748) è-béràk ɪɲɛ  ɲàínò
 3-be.long.time 3SG.NOM VN-go
  ‘He/she came some (a long) time ago.’ (lit. he has been a long time going) DX:04:46

(749) è-béràk jàni  in:áŋ w:ànaĩ  ínĩ
 3-be.long.time tree.NOM this.F VN:exist here
  ‘This tree has been here a long time.’ DX:14:54

There is also a contrasting verb, /itek/, ‘be recent’, which is used to express that someone has done something recently, as illustrated in (750). It appears that this verb is only used with the persistive marker /IV-/, PER, with this kind of meaning (see section 6.4.3.5).

(750) à-lá-itèk  náŋ  xįj:én  viktor
 1SG-PER-be.recent 1SG.NOM VN:know Victor
  “I’ve only recently got to know Victor.” DX:09:59

The verb /boro/, ‘be big’, can be used to express temporal as well as spacial size. In (751), it is used to describe an event (/xítila/, ‘waiting’) which has gone on for some time.

(751) ɔ̀-bɔ́rɔ  ijoyɔ́i  x-itílà  ná  xábú
 3-be.big 1PL.ABS VN-wait of.F chief.ABS
  ‘We have waited long for the chief.’ (lit. the waiting to us is big) BH:28:46
If one wants to say that an event occurs without warning or is unavoidable, one uses the verb /bot/, ‘go directly’. This encodes the English notion of ‘suddenly’ or ‘immediately’ and is shown in the following example.

\[
(752) \text{x-a-ítí-bót náŋ x-ìrìjè múnú}
\]
SEQ-1SG-CAUS-go.direct 1SG.NOM INF-tread.on snake.ABS

‘Suddenly I stepped on a snake.’ (lit. I went directly to step on a snake) BC:38:09

A verb with similar meaning, /icula/, is used to indicate something happened without delay or diversion.

\[
(753) \text{a-ícùlà náŋ nàinò à=xàjì l-è-fèrìë}
\]
1SG-go.direct 1SG.NOM INF.go to=house.ABS SBO-3-sleep

‘I went straight home to sleep.’ DW:12:52

### 8.3.5 Adverbial clauses

Lopit has a range of subordinate adverbial clauses including temporal, locative, manner and conditional clauses. A brief overview is given here and they are discussed in detail in sections 9.6 and 9.7 of the following chapter.

The general subordinating clause, which involves the subordinating prefix /l-/ (SBO), is often used in temporal adverbial clauses. This construction can be used without any specific adverbial subordinators, such as the equivalent of ‘when’ or ‘since’. The context of the utterance enables the speaker to determine that the subordinate clause is temporal.

\[
(754) \text{e-xi-ìjófà ṣé [l-ò-bór xítò mòtì]}
\]
3-PVF-be.angry 3SG.NOM SBO-3-break child.NOM pot.ABS

‘He became angry when the child broke the pot.’ BZ:11:19

Adverbial clauses can also be introduced by connectors such as /làjɔ/, ‘when’, ‘if’ and /xìjɔ/, ‘because’. These connectors are derived from the verbs /jɔ/, ‘say’. Other connectors are also used, including /nafa/, /ifa/, ‘when’; and /lefe/, ‘since’. The following example uses the connector /làjɔ/, which has subject marking in the verb, realised as [làjɔ]. The utterance can be interpreted as temporal or conditional, depending on the context.

\[
(755) \text{[làjò náŋ l-à-wú à tôrit], á-bót náŋ à bàlìs}
\]
if.1SG 1SG.NOM SBO-1SG-go to Torit 1SG-go.direct 1SG.NOM to police

‘If/when I go to Torit, I will go straight to the police.’ BQ:14:20

Manner adverbial clauses often have the form of what I call the ‘general adverbial construction’. This construction comprises the morpheme /ara/ (which can be translated as
‘3.be’, ‘it is’ or ‘like’) and a relative clause with a stative verb. The relative clause with a stative verb is the most common way of expressing property concepts in Lopit (see section 8.2 above). Thus, one could say that this ‘general adverbial construction’ is like an property stative relative clause construction except that it qualifies a verb rather than modifying a noun phrase. The expression [àrà nà], shortened to [ànà], or [á], can be translated as ‘like’, ‘as’, ‘in the manner of’. This is illustrated in (756) and is discussed in more detail in section 9.6.4.

(756) e-íbír íǹé bọ̀ọ́jín ànà l-ò-bús
3-distribute 3SG.NOM clothes like SBO-3-straight
He distributed the clothes fairly.’  BU:29:32
Chapter 9  Clause Combining Constructions

9.1  Introduction to clause combining constructions

In Chapter 5 and Chapter 6, I described the range of verbal constructions which are found in individual clauses. The structure of the basic sentence was discussed in Chapter 7. In this chapter, I present the ways in which clauses can be combined into complex sentences.

There are three distinct structures for combining clauses in Lopit. These are juxtaposition, coordination with some kind of linking and subordination with some kind of linking. Juxtaposition can be used to express both coordination and subordination. In section 9.1.1, I describe clause juxtaposition and provide some examples of the different ways these constructions are used. In sections 9.1.2 and 9.1.3, I describe the two main ways of marking coordination and subordination. These involve the use of the sequential marker /x/-, ‘SEQ’, and the subordinate marker, /l/-, ‘SBO’ respectively.

Then, in 9.2 and 9.3, I discuss coordination, which represents the least integrated (or interdependent) way of joining clauses in a single sentence. Coordination generally involves the combination of phrases or clauses of the same type. The main form of clausal coordination in Lopit is conjunctive coordination although there are other forms including adversative and disjunctive. These are all described in section 9.2. Coordination of noun phrases in Lopit can only occur with inclusory constructions. These are presented, together with comitative constructions, in section 9.3.

In sections 9.4 to 9.7, I examine subordination, which usually involves one independent clause and one or more dependent clauses. We can distinguish three types of subordinate clauses: those which function as noun phrases (complements), those which function as modifiers of nouns (relative clauses) and those which function as modifiers of verb phrases or entire clauses (adverbial clauses) (Thompson, Longacre, & Hwang, 2007, p. 238). In this chapter, conditional constructions are discussed in a separate section (9.7), since they form a rather large sub-group of adverbial clauses.

Complement clauses are usually obligatory constituents of the main clause, whereas both relative and adverbial clauses are adjuncts and may be omitted. A comparison of the main distinguishing features of the different types of subordinate clauses cross-linguistically is shown in Table 9-1 (adapted from (Diessel, 2001, p. 436)).

The term coordination is usually applied to both phrases and clauses. Subordination, on the other hand, is restricted to clauses.
Table 9-1: Criteria distinguishing adverbial, complement and relative clauses

<table>
<thead>
<tr>
<th></th>
<th>complement</th>
<th>relative</th>
<th>adverbial</th>
</tr>
</thead>
<tbody>
<tr>
<td>syntax</td>
<td>complement</td>
<td>adjunct</td>
<td>adjunct</td>
</tr>
<tr>
<td>semantics</td>
<td>argument of complement</td>
<td>modifier of NP</td>
<td>modifier of clause or VP</td>
</tr>
<tr>
<td>marking</td>
<td>zero or complementizer</td>
<td>gap or pronoun</td>
<td>adverbial subordinator</td>
</tr>
</tbody>
</table>

9.1.1 Clause juxtaposition

In Lopit, two independent clauses can be linked without any marker of subordination or coordination. This is termed clause juxtaposition, or asyndenic coordination (Haspelmath, 2007, p. 7). It is also called parataxis (Noonan & Bavin, 1981, p. 45). This section gives some examples of how juxtaposition is used in coordination and subordination. More examples are given in the later sections (9.2 on coordination and 9.4 to 9.7 on subordination).

9.1.1.1 Conjunctive coordination

Example (757) was expressed during a description of the process of making drums in a Lopit village. The two independent clauses [ɛ̀cá xjó], ‘people dance’, and [eigúrò xjó kùl], ‘people make beer’, are juxtaposed to indicate that these are some of the activities that people do after they have finished making the drums. See section 9.2.2.1 for more detail.

(757) ɛ̀-cá xjó e-igùr-ò xjó kùl
3-dance.IPFV people.NOM 3-brew-I PFV people.NOM beer.ABS
‘The people dance, the people make beer.’ 20140624:18:28

9.1.1.2 Adversative coordination

Example (758) has two clauses [eiróxòl írásí leiti], ‘my brother is clever’, and [ŋòdè lébàk îné], ‘blindness hit him’. Here, there is sufficient context in the first clause for the hearer to know that the second clause is in contrast to the first. This is discussed further in section 9.2.3.1.

(758) e-iróxòl írásí leiti ŋòdè l-é-bàk îné
3-be.clever brother.NOM my.M blindness.ABS SBO-3-hit 3SG.ABS
‘My brother is clever but illiterate.’ (lit. ‘blindness hit him’) CZ:59:20

Note that the subject of the second clause [ŋòdè] is in the absolutive case since it has been moved in front of the verb. See section 7.3.5 on the case system and the ‘no case before the verb’ rule.
9.1.1.3 Causal coordination

In the following example, the two independent clauses [aídúró náŋ, ‘I’m late’, and [bóóró táráfík], ‘the traffic was big’, are uttered sequentially and the hearer understands that the speaker is inferring that the first is caused by the second. This is discussed further in section 9.2.3.3.

(759) a-idúró náŋ bóóró táráfík
1SG-be.late 1SG.NOM 3-be.big traffic
“I’m late because of the traffic’ (lit. ‘I’m late. The traffic was big’) 20130501:17:30

9.1.1.4 Complementation

Juxtaposition can be used to combine two independent clauses whereby one clause is the complement of the other. The clause [jòn leíyári fédé nàinò], ‘John took your gourd’, is the complement of the verb /gl/, ‘think’. This is discussed further in section 9.4.2.2.

(760) á-gíl náŋ jòn l-e-íjáří fédé nàinò
1SG-think 1SG.NOM John.ABS SBO-take-IT gourd.ABS your.F.ABS
‘I think John took your gourd’ DE:07:47

9.1.1.5 Conveying adverbial concepts

Clause juxtaposition can be used to combine two main clauses in order to convey temporal adverbial concepts like ‘before’, ‘while’. These constructions involve both the persisitive marker /lv-/ (see section 6.4.3.5) and the sequential marker /x-/ (see 9.1.2).

(761) á-mát náŋ jái ð-lò-x-ò-nôk
1SG-drink.N 1SG.NOM tea.ABS 3-PER-SEQ-3-be.hot
‘I drink the tea while it’s hot.’ (lit. “I drink tea... it is still hot’) ED:04:29

9.1.1.6 Conditionals

Lopit has conditionals utilizing clause juxtaposition. The following example, (762), comes from a narrative about cows. In this utterance, there are two declarative clauses in each utterance and no overt marking. The context of the utterances (i.e. the speaker is talking about the importance of cows) enables the hearer to infer a rhetorical or pragmatic connection between the two clauses. The connection is that the first clause states some condition under which the second clause holds. This topic is discussed further in section 9.7.6.
The prefix /x-/ is used when the verb is used sequentially. It could also be called the subsecutive, consecutive, or narrative marker. This kind of marker is relatively common in Eastern Nilotic languages (Barasa, 2017; Dimmendaal, 1983b; Tucker & Mpaayei, 1955) although it has different forms in different languages. In Lopit, it is used as a narrative marker, i.e. one which continues the action which develops the main theme or main event sequence. However, it has other applications which indicate that it is broader than a narrative marker. It is also used in contexts which are not sequential. It can be used in simultaneous clauses and it is also used in the coordinating word /xɔɟɔ/. The sequential marker often occurs in stories where it is used to link clauses as part of an on-going narrative. This is shown in the following:

(763) e-iyáni xíwaró ɲàmà x-o-isiérè dè=xùróxó
3-bring leopard.NOM sorghum.ABS SEQ-3-give to=goat.kids.ABS
'The leopard brought the sorghum and gave it to the young goats.' Squirrel Story 24

Note that the third person pronominal marker in the verb [xoisíérè] is /o/ and not /e/, even though there is no mid-vowel assimilation. This has also been observed with the verb /mata/, 'drink' in the clause [xòmáťá jai], 'and (she) drinks tea' (DK:06:20). This suggests that the prefix /x-/ might be a grammaticalised form of the comitative preposition /xɔ/, 'with', which is discussed in section 9.3 below. This only happens with the third person form. The first person form uses the usual first person pronominal prefix /a-/.

The same sequential prefix /x-/ is used for Class II verbs. This is shown in the following with the verb /ilur/, 'go around'.

(764) xájó nàj x-á-dáxá
and.then 1SG.NOM SEQ-1SG-eat
'And then I eat.' AH:01:22:14

'and then he went around to the other side.’  Lobiliwari story
It can also be used clause-initially on the main verb when introducing an independent clause. This expresses continuity in the narrative.

(766) x-ð-wọló Lobliwari l-ð-dwání
SEQ-3-see Lobliwari SBO-3-be.no.activity
‘And Lobliwari saw that nothing happened.’ Lobliwari story

The sequential marker does not appear to be used in the Ngutira dialect. The following two examples are taken from a similar point in one of the squirrel stories. Example (767) is in the Ngutira dialect.

(767) ọjọ huruho o-fuo h-ituk h-ŋa ngama
then goat kids 3-go INF-finish INF-eat sorghum
‘The young goats went and finished eating the grain’. Squirrel story Ngutira (SIL)\(^{42}\)

This contrasts with the Dorik version (768) where the sequential marker /x-/ is used both on the utterance-initial [xɔ́ɔj] and on the next verb [xɔís].

(768) xɔ́jɔ xúròxɔ x-o-ísók x-ípá ŋàmà nùxà
and.then goat kids.NOM SEQ-3-finish INF-eat sorghum.ABS that.F.PL
‘Then the goat kids completely consumed all the sorghum.’ Squirrel story (11)

The (Dorik) consultants have remarked that the southern dialects, including Ngutira, are more influenced by Otuho, which does not appear to have a sequential or narrative marker (Muratori, 1938, pp. 163–164).

This kind of sequential marker is relatively common in Eastern Nilotic languages. The Maa n- marker has been described as a ‘narrative tense marker’ by Tucker and Mpaayei (1955, p. 65) and a ‘narrative marker’ by König (1993, p. 169). Payne (2015a) examined many discourse texts in Maa and found that it is not limited to marking narrative events. She glosses it as “Connective 1, CN1”, and describes it as something which indicates “high thematic continuity” and “invites the hearer to infer any more precise relationship that makes sense in the context” (2015a, p. 30). Maa also has a second connective k-, connective 2, CN2, which Payne describes as a “low continuity connective” (2015a, p. 50). In Turkana, the sequential marker is called the ‘subsecutive mood’ marker and is to- (Class I) or ki- (Class II) for second and third person (Dimmendaal, 1983b, p. 174). It is particularly interesting to note that the Turkana/Toposa tV- subsecutive marker is cognate with the prefix of the

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\(^{42}\) The orthography is that given in the SIL publication (Ladu, Nartisio, Bong, Odingo, & Gilbert, 2014b, p. 117)
Maa perfect/perfective marker. As Payne points out, this is an interesting area for further research (2015a, p. 48).

As noted above, Otuho does not appear to have a sequential or narrative marker. This is illustrated in the following utterance from a recording of a Otuho speaker in Melbourne (20151123-1), which contains the narrative conjunction ette, ‘and then’ (Muratori, 1938, p. 164). This word comes from the verb te which can be translated as ‘and right after’, ‘e subito dopo’ (Muratori, 1938, p. 163).

(769) Otuho ə-ló jón ítwà àmùr ete é-gònpú-ná áwòrù
3-go John.NOM inside forest.ABS and.then 3-see-PFV leopard.ABS
‘John goes inside the forest and then saw a leopard.’ CB:47:54

9.1.3 The prefix /l-/, subordinate marker

The prefix /l-/ is used in a number of environments such as the conditional clause (770), the relative clause (771), negative constructions (772), contrastive focus constructions (773), and interrogatives (774). In these constructions the verb is often in a subordinate situation and this is why the term ‘subordinate marker’ and the gloss SBO are used. In some situations where the verb has the subordinate marker, it will be in a subordinate clause. In other situations, the subordinate marker is used in a clause which may not be subordinate. However, in these cases, the matrix verb with the subordinate marker is not in the unmarked clause-initial position. I will now present a range of examples.

In example (770), the verb with the prefix /l-/, [lìlaxak], is in a conditional clause which is subordinate to the main clause [ômúri], ‘it burns’. In example (771), the verb with the prefix /l-/, [lìsàgà], is in a relative clause, which is a subordinate clause.

(770) [lì-làxà-k ịjé imóné dè = sàli xòtùb] [ô-múri]
SBO-2SG-leave-DAT 2SG.NOM bread.NOM on = hearth too.long 3-burn
‘If you leave the bread on the hearth too long, it burns.’ AZ:17:48

(771) a-ịj:èn nàń tòxònì [lè l-e-ìsàgà]
1SG-know 1SG.NOM person.ABS REL.M SBO-3-be.tall
‘I know a tall man.’ (lit. ‘I know a man who is tall.’) AV17:20

Example (772) is a negative construction in which the word [ịnà] can be regarded as an auxiliary verb (see section 7.8). In this case, the verb with the prefix /l-/, [làwù], is placed after the subject and is not in its normal clause-initial position.
The following two examples contain only one verb each and, in both cases, the verb is displaced from the normal initial position. Example (773) is a contrastive focus construction where the speaker is emphasising that it was the child (and not somebody else) who saw the squirrel. This is discussed in more detail in section 7.2.3.

(773) xító  l-ò-rìŋ-ù  ikúdò  
child.ABS     SBO-3-watch.PF-VEN     squirrel.ABS  
‘(It was) the child (who) saw the squirrel.’ DO:08:17

The next example is a question in which the question word, /anu/, ‘when’, starts the utterance and the verb is moved from the normal initial position.

(774) ánù  l-ei-wóló  ìsó  ìjé  nàŋ  
when     SBO-2SG>1SG-see     FUT     2SG.NOM     1SG.ABS  
‘When will you see me?’ BT:45:00

In these last three examples, the verb might not be regarded as subordinate, although, diachronically, they may be. For example, the focussed construction in (773) is probably derived from a bicausal construction as discussed in section 7.2.3. Similarly, the negative construction in (772) could, even synchronically, be regarded as a bicausal construction. In all these examples, the prefix /l-/ does indicate that the matrix verb is in a marked position in the clausal word order. At this stage, I will use a single gloss, SBO, for this prefix.

It should be pointed out that not all verbs in subordinate clauses are marked with the subordinator. As discussed in section 6.5.2, verbs with modal prefixes in subordinate clauses are not prefixed with the subordinator.

There is considerable variation within the Eastern Nilotic languages as some languages have some kind of subordinate marker and others do not. The prefix k- in Turkana appears to be similar to the Lopit subordinate marker (/l-, SBO) in that it is placed before the bound pronominal marker and is only used in subordinate clauses (Dimmendaal, 1983b, p. 185). Something similar also happens in Ateso (Barasa, 2017, p. 202; Hilders & Lawrance, 1957, p. 29). Maa may also have something that might be interpreted as a subordinate marker. Payne describes the “Low Tone” construction which “can never stand alone as the only clause in the sentence” (2017). This construction has a low tone prefixed to the matrix verb and she gives some examples of it in adverbal reason clauses and interrogatives.
On the other hand, for Bari, it appears that there is no subordinate marker. Spagnolo states that “there is no subjunctive or conditional mood” and that “simple tense constructions helped by conjunctions and verbs give the required effect” (1933, p. 231). Otuho is similar to Bari. In Otuho, subordination “is done by means of subordinative conjunctions, by means of the relative pronoun and the interrogative pronouns, and also by means of some interrogative adverb. In Lotuxo, subordination sometimes takes place without any connecting particle” (Muratori, 1938, p. 413). It appears that there is no subordinating marker in Otuho (from examples of subordinate clauses given by Muratori (1938, pp. 439–447)).

As discussed above, Lopit uses verbal prefixes (either /x-/ ‘SEQ’ or /l-/, ‘SBO’) to mark the matrix verb when it is not in the clause-initial position. This is not observed in other EN languages and this can be regarded as a distinguishing feature of Lopit.

9.2 Coordinating clauses

9.2.1 Introduction

Coordination refers to “syntactic constructions in which two or more units of the same type are combined into a larger unit and still have the same semantic relations with surrounding units” (Haspelmath, 2004, p. 34). These units may be verbs, phrases, subordinate clauses or full sentences.

Lopit has a range of coordination types including conjunctive, comitative, adversative, disjunctive, causal and emphatic coordination. A feature of Lopit coordination is that it has a limited number of coordinators (and/or coordinating conjunctions). The most common form of clause coordination uses the sequential marker /x-/ on the verb in the second coordinated clause. This provides the linker between the clauses. Clause juxtaposition, i.e. without any overt linker, is also used to indicate coordination. Conjunctive coordination is discussed in section 9.2.2.

There are no distinct Lopit conjunctions (or coordinators) for adversative, disjunctive, causal and emphatic coordination. Lopit has a number of ways of expressing these kinds of coordination. They include paratactic constructions, which sometimes involve adverbs, and constructions using the sequential marker /x-/ within a particular discourse context. Sometimes loan words are used in Lopit for coordinating conjunctions. These include /asan/, ‘because’ and /wale/, ‘or’, (both from Arabic) and /or/ (from English). This is not unusual and Haspelmath notes that “languages that lack writing often lack indigenous coordinators” and often borrow coordinators from other languages (2007, p. 7). These types of coordination are discussed in section 9.2.3.
9.2.2 Conjunctive coordination

9.2.2.1 Clause juxtaposition

As discussed in section 9.1.1, coordination can occur through the juxtaposition of two independent clauses. This is also described as zero strategy (J. Payne, 1985, p. 25). Juxtaposition can often occur in descriptions and narratives where the clauses have the same function in terms of the event structure of the text and there is some conceptual linkage between them (T. E. Payne, 1997, p. 337). The examples in (775) and (776) are taken from descriptions of traditional Lopit cultural activities. In (775), the clauses describe activities that occur after the drums have been made. In (776), the clauses describe qualities that are required by the /xabaran/, ‘manager of the cattle’.

(775) è-cá xijó e-ìgúr-ò xijó kùl
3-dance.IPfv people.Nom 3-brew-IPfv people.Nom beer.Abs
‘The people dance, the people make beer.’ 20140624:18:28

(776) è-tè-ɲà íjé l-ì-mòrò xijò, è-tè-ɲà
3-Obl-not.be 2sg.nom l-ì-gòs xijò, è-tè-ɲà íjé l-ì-rútei.
2sg.nom Sbo-2sg-be.greedy 3-Obl-not.be 2sg.nom Sbo-2sg-be.selfish
“You shouldn’t abuse people, you shouldn’t be greedy, you shouldn’t be selfish.’
20140508:16:34

Clause juxtaposition can also be used to combine main clauses which, from the English translation, might be interpreted as a main clause with an adverbial clause. The word /ɔłxɔŋa/, ‘not yet’, is used in the second clause in both (777) and (778). Although it may have the English interpretation of the adverbial conjunction ‘before’, the word /ɔłxɔŋa/ introduces a second main clause. The word /ɔłxɔŋa/ is discussed in section 7.8.7. Adverbial clauses are discussed in section 9.6.

(777) [3-t-ɔxò ɲé pórà nà ʃmónɛ] [ɔłxɔnà nàŋ l-ə-ibá]
3-finish 3sg-nom baking.abs of.f.bread not yet 1sg.nom Sbo-1sg-arrive
‘He finished making the bread before I arrived.’
(lit. ‘He finished making bread, I had not yet arrived’) AC:1:20:53

(778) è-ɲà-wúrò-k ɲé xáná nàŋí
3-Pfv-break-dat 3sg.nom arm.abs his.f.abs
[ɔłxɔnà nàŋ l-ə-ibøŋ xɔ=ɲɛ ]
not yet 1sg.nom Sbo-1sg-meet with = 3sg.abs
‘He had broken his arm before I met him.’ (lit. I had not yet met him’) CG:02:34
There are a number of other similar kinds of constructions. In the following two examples, the persistive prefix, /le-/, is used in the main verb in a juxtaposed clause to convey the sense of 'while' (i.e. the equivalent of a temporal adverbial clause). There is no subordinate marker on the verb, indicating that the clause [ëleibwòtô], 'he was still drunk', is an independent clause. Note that the two verbs in the second clauses of (779) and (780) are usually shortened to [ëleibwòtô] and [òlònòk] respectively.

(779) é-jírà  tòròmîlè  è-lè-x-e-ìbwòtô
     3-drive  car.ABS  3-PER-SEQ-3-be drunk
 'He drove the car while he was (still) drunk.'  (lit. 'He drove the car, he was still drunk.')  ED:22:22

(780) á-mát  náŋ  ʃaì  ð-lè-x-ò-nòk
     1SG-drink.N  1SG.NOM  tea.ABS  3-PER-SEQ-3-be.hot
 'I drink the tea while it's hot.'  (lit. 'I drink tea, it is still hot')  ED:04:29

9.2.2.2 The sequential marker /x-/

When two clauses are coordinated, the sequential marker /x-/, 'SEQ', is often used (see 9.1.2). The sequential marker is prefixed to the verb in the second clause, as shown with [xáròmòrî] in the following.

(781) a-í-tì-gém  náŋ  kèbò  x-á-ròmò-ri  màná
     1SG-CAUS-work  1SG.NOM  plough blade  SEQ-1SG-plough-INS  field
 'I repaired the plough blade and ploughed the field with it.'  AJ:53:52

Several coordinating clauses can be linked together and the sequential marker is used in each coordinated clause after the first one.

(782) à-xéj  náŋ  bátlá  x-a-idwò-k  xí-fêjô  x-a-ìbfìrò-k  xírìŋò
     1SG-fry  1SG.NOM  onions  SEQ-1-pour-DAT  water.ABS  SEQ-1-throw-DAT  meat
 'I fry onions, I pour in water and put in meat.'  BQ:35:37

These constructions contrast to those in (775) and (776) which do not have any coordination marking. The examples in (781) and (782) refer to events are clearly sequential ('I fry onions before I pour in water'). The clauses in (775) and (776) are not necessarily in a sequence.

The marker /x-/ can have a broader function than indicating sequential clauses. They can also be used for simultaneous clauses. In the following example, Lobiliwari and his father carried the grubs as they were going home.
The coordinating word /xɔɟɔ/

The word /xɔɟɔ/ is frequently used in coordination of clauses. The word is a grammaticalised form of the verb /ɟɔ/, ‘say’ and can be glossed as /x-ɔ-ɟɔ/, ‘SEQ-3-say’ and could be translated literally as ‘and they say’. It is usually translated as ‘and’ or ‘and then’ and often occurs in narratives, stories and descriptions.

When /xɔɟɔ/is used in a clause, the main verb is prefixed with the sequential marker /x-/ and is placed after the subject, which has nominative case marking. In this sense, /xɔɟɔ/ behaves like an auxiliary verb. That is, we can consider the simple (VS) clause [ɔ́jːe mùnù níá], ‘the snake died’ and examine what happens when it occurs in a coordination construction as in (784). The coordinated clause [xɔ̀jːe mùnù níá xɔ́jːe], ‘and the snake died’ can be viewed as an AUX S V clause. Note that this clause, [xɔ́jːe mùnù níá xɔ́jːe], can also be an independent clause (see section 9.1.2).

(784) è-ŋà-dùm-ú ñé mòrwó x-o-ídọ́j mùnú
     3-PFV-take-VEN 3SG.NOM stone.ABS SEQ-3-PFV.throw.at snake.ABS
     xɔ́jː mùnù níá x-ɔ-jeʃí
     and.then snake.NOM that.F SEQ-3-die

‘He took a stone and threw it at the snake and the snake died.’ BC:01:14:30

There does not appear to be any difference in meaning between a clause beginning with /xɔɟɔ/ and one beginning with the sequential marker prefixed on the main verb. The last clause of example (784) is changed in the following example with no change in meaning.

(785) x-ɔ-jeʃí mùnù níá
     SEQ-3-die snake.NOM that.F

‘and the snake died.’ DS:23:52

The word /xɔɟɔ/ can also be used when there is no sequential relationship between the two clauses. The following example comes in a discourse when the speaker is explaining that there are two types of marriage. Note that there is ellipsis of the main verb (/wːon/, ‘exist’) in the second clause.
can also be expressed without the word /ɔɟɔ/, using the sequential marker /x-/ to link the two clauses. This time the main verb (/wːon/, ‘exist’) is repeated. The meaning is the same.

The word /ɔɟɔ/ shows marking for person and number, as shown in the (788) and (789). This reinforces the interpretation of /ɔɟɔ/ as having verbal characteristics. Note that the first person plural marker is [ɔɪ] rather than [ɛɪ]. This applies to both the linking morpheme /ɔɟɔ/ and the sequential marker, as shown in (789) (see section 5.3 on subject and object marking).

The word /ɔɟɔ/ is also used as a coordinating conjunction when there are three or more NPs in a coordinated construction, as shown in (790). If there were only two coordinands, the utterance would begin with the comitative construction [xĩŋɔxú xɔ xitéŋ], ‘the dog with the cow’. (The comitative is discussed section 9.3.)

(786) ò-wːón nábɔ l-á-rá x-ǐfɔxìtà xɔjɔ nábɔ ná l-á-rá x-ìdìrità
3-exist one SBO-3-be VN-arrange and.then one REL.F SBO-3-be VN-elope
‘There is one that is arranging and one that is eloping.’  BD:16:13

(786) can also be expressed without the word /ɔɟɔ/, using the sequential marker /x-/ to link the two clauses. This time the main verb (/wːon/, ‘exist’) is repeated. The meaning is the same.

(787) ò-wːón nábɔ l-á-rá x-ǐfɔxìtà x-ɔ-ɔːn ná l-á-rá x-ìdìrità
3-exist one SBO-3-be VN-arrange SEQ-3-exist REL.F SBO-3-be VN-elope
‘There is one that is arranging and one that is eloping.’  BD:15:35

(788) x-á-jɔ náŋ x-á-dáxá
SEQ-1SG-say 1SG.NOM SEQ-1SG-eat
‘And then I eat.’  AH:01:22:14

(789) x-ɔ-i-jɔ jìxɔi x-ɔ-i-dáxá
SEQ-1PL-say 1PL.NOM SEQ-1PL-eat
‘And then we eat.’  BA:09:17

(790) xíné xĩŋɔxú xɔjɔ xítɛŋ
goat.ABS dog.ABS and.then cow.ABS
e-ǐjeítà lòmòt:è ná l-ɔ-báɔ̩
3-have friendship REL SBO-3-be.big
‘The goat, the dog and the cow are great friends.’
(lit. ‘The goat, the dog and the cow have a friendship which is big’)  DS:27:42
Constructions involving the word /xɔɟɔ/ can also be used to convey adverbial concepts. In (791), the event in the first clause, [òwú ñëc à sükûl], occurred at the same time as the activity in the second clause.

(791) ò-wú ñëc à = sükûl xàyù nàŋ x-a-ítólè dè = xàŋ
3-go 3SG.NOM to = school and.then 1SG.NOM SEQ-1SG-sit at = home
‘He went to school while I stayed at home.’
(lit. ‘He went to school and I sat at home.’) DI:33:05

9.2.3 Other forms of coordination

9.2.3.1 Adversative coordination

Adversative coordination is signalled by ‘but’ in English. In Lopit, there are a number of ways of expressing adversative coordination. Some of these involve the word /xatɪ/ which can be variously translated as ‘but’, ‘however’, ‘indeed’, ‘in fact’ and ‘on the other hand’. It could be regarded as an emphatic adverb which provides an adversative reading provided by the context. Often clause juxtaposition is used and this can be with or without /xatɪ/. Sometimes adversative coordination is expressed using the sequential marker /x-/ or the linker /xɔɟɔ/, although these constructions appear to be much less common than juxtaposed adversative constructions. The word /xatɪ/ is similar to the Otuho word ati, ‘but, however’, which is described as an adversative conjunction by Muratori (1938, p. 411). However the Lopit word /xatɪ/ is not a conjunction, as is discussed below. I will now present the various ways of expressing adversative coordination.

I will first discuss adversative constructions without /xatɪ/. These can involve either clause juxtaposition or clause coordination. Clause juxtaposition, as discussed in section 9.2.2.1 above, is illustrated in (792). This example has two clauses [e-irôxòl fràsì leîtì ñòdè l-è-bàk ñè], ‘my brother is clever’ and [ŋòdè lèbàk ñè], ‘blindness hit him’. Here, there is sufficient context in the first clause for the hearer to know that the second clause is in contrast to the first.

(792) e-irôxòl fràsì leîtì ñòdè l-è-bàk ñè
3-be.clever brother.NOM my.M blindness.ABS SBO-3-hit 3SG.ABS
‘My brother is clever but illiterate.’ (lit. ‘blindness hit him’) CZ:59:20

Adversative coordinated clauses can be expressed using the coordinator /xɔɟɔ/, which is normally used in conjunctive coordination (see 9.2.2.3). In (793), the second clause is

43 Note that the subject of the second clause [ñòdè] is in the absolutive case since it has been moved in front of the verb. See section 7.3.5 on the case system and the ‘no case before the verb’ rule.
sequential in that the plough broke after the ploughing started. In this construction, it is clear to the hearer that the breaking of the plough was in contrast to the normal expectation of continuing to plough.

(793) a-ì-kèm  ifà nà́ŋ ròmò
1SG-PFV-try PST 1SG.NOM INF.plough.IPfv
xàŋ dì bù nàlì x-ò-wùr-ò
and.then plough.NOM my.F.NOM SEQ-3-break-MI

'I tried to plough but my plough broke.'  AI:23:08

As mentioned above, the word /xati/ can be used in juxtaposed adversative clauses. In the following example, the two juxtaposed clauses are [òwù ǐnè ̀lèrìjàà dìktòr], 'he went to see the doctor' and [ìnà xàti dìktòr ̀lìw:ǹ], 'but the doctor was not there'. It should be noted that it is not possible to put /xati/ at the start of the second clause (i.e. in front of [ìnà]) in this kind of construction (AF:09:20). This suggests that /xati/ is not a coordinator, but rather an adverb or particle.

(794) 3-wò ǐnè  l-è-rìjà-rì dìktòr  ǐnà xàti dìktòr  1-ò-w:ǹ
3-go 3SG.NOM SBO-3-see-IT doctor.ABS not.be but doctor SBO-3-be

'He went to see the doctor but the doctor was away.'  AB:45:17

This kind of construction is also found in non-negative constructions, as shown in (795). Note that this example comprises two juxtaposed clauses, marked with square brackets.

(795) [a-ìtìritá nàŋ bùk nàtì] [3-ròmà xàti dàń ̀njó ̀lìè? moìtè]
1SG-lose.PFV 1SG.NOM book my.F 3-find but Dan yesterday morning

'I lost my book, but Dan found it the day after.'  AG:01:33:13

There is a special form of adversative construction using juxtaposed clauses in which the adversatively juxtaposed part is introduced by the verb /ara/, '3.be', which can be translated as 'it is'. The word /xati/ follows /ara/, and the combination [árá xàti], 'it is however' is reasonably common. In the following example, the first clause is [3w:ǹ ǐnè bolìọ́], 'he is peaceful' and it is followed by [árá xàti xìnà lemir ǐnè], 'but he suffers from hunger'. This second part is, in fact, two clauses. The first is [árá xàti xìnà], 'it is hunger' and the second is the relative clause [(nà) lèmir ǐnè], 'which defeats him'.

(796) o-won ǐnè  bolìọ́ á-rá xàti xìnà  1-è-mìr ǐnè
3-be 3SG.NOM peaceful 3-be but hunger.NOM SBO-3-defeat 3SG.ABS

'He is peaceful but suffers from hunger.'

(lit. 'He is peaceful, it is however hunger that defeats him') CZ:44:45
The combination [árá xàtì] is often shortened to [àxàtì] (as /ara/ is often shortened to /a/) and also to [à:tì] as shown in the following example.

(797) ë-rúxúl írásì leítì àtì ñòdë 1-é-bàk ñè
3-be.clever brother.NOM my.M it but blindness.NOM SBO-3-hit 3SG.ABS

‘My brother is clever but illiterate.’ (lit. ‘it is however blindness which hit him’) CΖ:01:00:25

Clause juxtaposition can also occur where there is a contrast between a positive expression and a negative expression, in which the second clause expresses a contrast to the first. An example is given in (798). This is an example of what Haspelmath calls substitutive adversative coordination (2007, p. 28). No special coordinator is used.

(798) ò-wák ñè x-ìrò dè=xítò nà l-ò-mweì
3-want 3SG.NOM INF-speak to=child REL.F SBO-3-be.sick

‘He wants to speak to the sick girl not to the happy one.’ CO:09:35

It is worth noting that /xati/ does not always provide a strictly adversative sense. In the following example, it could be translated as ‘in fact’ or ‘indeed’. This supports the view that /xati/ is best regarded as an emphatic adverb or particle.

(799) l-ì-jóm ìjè xìjó xátì ijè kwàn x-ò-líbá
SBO-2SG-rest 2SG.NOM and.then indeed 2SG.ABS body.NOM SEQ-3-be.good

‘If you rest, then you feel well (lit. to you the body is good).’ BV:26:18

9.2.3.2 Disjunctive coordination

Lopit lacks a disjunctive coordinator (or disjunction) similar to the English ‘or’. Nevertheless, there are a number of ways of expressing disjunctive coordination in Lopit. The first two methods involve expressing some kind of doubt or possibility to create the disjunction. These involve the adverb /ma/ which is glossed as POT and can be translated as ‘possibly’, ‘maybe’. The first method, one uses a coordinating construction that sets up a kind of contrast. In (800), the conditional clause [lè-sà mà xìnà] can be literally translated as ‘if it might rain and not’ but infers a disjunctive meaning.

(800) [l-è-sà mà x-ìnà ,]p [ìjìròmò-k ìjòxòi xìnìmò]q
SBO-3-rain POT SEQ-3-not.be 1PL-dig-DAT 1PL.NOM seeds

‘Whether it rains or not, we will plant the seeds.’ BV:33:09
A second method involves the use of the expression /xa ma xati/, ‘is it maybe’, in successive clauses. The particle /ma/ is the potential marker (see 6.5.3) and /xati/, ‘but’, ‘indeed’, is discussed in section 9.2.3.1. I have only observed it in questions.

(801) x-á-rã mà xåti lôxî≠dôj x-á-rã mà xåti jôn Q-3-be POT indeed Lohidong.ABS Q-3-be POT indeed John.ABS
‘Is it Lohidong or John?’ EI:55:55

A third method is the use of loan words as disjunctions. The word /wale/ or /wele/ is from the Arabic wala, ‘or’, in (802) and the English disjunction /or/ is used in (803).

(802) x-ò-wôlô íŋê lârêwô wale ô-wôlô íŋê màmâñi 3-see 3SG.NOM husband.ABS or 3-see 3SG.NOM uncle.ABS ‘Did she see the husband or did she see the uncle?’ AR:48:20

(803) e-ílk dândinôŋ àrá xîjô 3-be.mostly Dandenong like people.ABS xôną l-ê-fânû tà=âfrîkà òr âjìà PL.REL.F SBO-3-come from=Africa or Asia ‘Dandenong is mostly people from Africa or Asia.’ BU:33:56

9.2.3.3 Causal coordination

There are a number of ways of expressing causal (or illative) coordination, which is expressed with ‘for’ or ‘because’ in English. It can be done using clausal juxtaposition where the full meaning is understood from the context. This, in the following example, the two clauses [aïdúrò nànj], ‘I’m late’, and [3bôrò târâfîk], ‘the traffic was big’, are uttered sequentially and the hearer understands that the speaker is inferring that the first is caused by the second.

(804) a-ïdúrò nànj 3-bôrò târâfîk 1SG-be.late 1SG.NOM 3-be.big traffic ‘I’m late because of the traffic’ (lit. ‘I’m late. The traffic was big’) 20130501:17:30

More usually, the sequential marker /x-/ is used in conjunctively coordinated constructions (see section 9.2.2.2). In (805), the causal event (‘the monkey saw me’) is placed before the resulting event (‘and ran away’). This order might be because the cause preceeds the result.

(805) eï-wôlô àwôŋ nànj x-o-îrwaṭ (íŋê) 3>1-see.PFV monkey.NOM 1SG.ABS SEQ-3-run.away.PFV 3SG.NOM ‘The monkey saw me and (he) ran away.’ BR:14:28 (DS:15:53)
Another possibility in the same kind of utterance is the use of the coordinator (and auxiliary verb) /xɔŋ/. Both (805) and (806) have the same meaning (DS:16:16).

(806) eî-wòló ìw:óŋ nàŋ xɔŋ ịnèjá x-o-f rwàt
3 >1-see.PFV monkey.NOM 1SG.ABS and.then 3SG.NOM SEQ 3-run.away.PFV
‘The monkey saw me and then he ran away.’ BR:14:28

It is possible to use the word /xịɔ/ as a causal conjunction (similar to 'because' in English). The following example is another way of saying what was said in (804) above. When /xịɔ/ is used, the verb does not take a subordinating prefix /l-/ or sequential marker /x-/ . This is the same as when /xịɔ/ is used as a complementizer (see section 9.4.2 below).

(807) a-idurọ nàŋ xịɔ ọ-bàrọ tarafik
1SG-be.late 1SG.NOM because 3-be.big traffic
‘I’m late because of the traffic.’ (lit. ‘I’m late because the traffic was big’) 20130501:17:40

Some speakers use the word /asàn/ or /aʃan/, ‘because’, which is borrowed from the Arabic, āshan (I. Smith & Morris, 2005, p. 902).

(808) ë-ŋà-tóxọ-ì móŋmìjì xù-lí lọŋàxùr àràkóri
3-PFV-kill-VEN leaders.NOM PL.of.M Longahur Arakori
àsàn e-ịjén rúrí bi dåŋ
because 3-know matters.ABS indeed all
‘The Longahur leaders had already killed Arakori because of his talents.’ Arakori story

9.2.3.4 Emphatic coordination

Emphatic coordination can be distinguished from normal coordination in that, with the former, “it is emphasized that each coordinand belongs to the coordination, and each of them is considered separately” (Haspelmath, 2007, p. 15). Normally, this occurs with two conjunctions (e.g. ‘both ...and’ in English).

Lopit does not have a ‘both...and’ construction, but it does have a construction shown in (809) which has the comitative preposition /xɔ/ and the word /a/ or /ara/, which sometimes appears to behave as a preposition (‘like’, ‘as’). Thus (809) could be translated as ‘We are going to Torit and Juba both’ and could be regarded as emphatic coordination.

(809) eî-fwó à=tórit xò=jùbà á (árá) àrik
1PL-go.PL to=Torit with=Juba like two
‘We are going to both Torit and to Juba.’ CZ:01:08:08
On the other hand, example (810) shows no specific emphasis and appears to be an example of normal coordination.

(810) ɛ́-fwó   à=júbà   x-ô-ťfwó   à=tôřít   dàŋ
1PL-go.PL  to=Juba  SEQ-1PL-go.PL  to=Torit  also
‘We are going to Torit and are going to Juba also.’  CZ:01:07:01

9.3 Comitative coordination and inclusory constructions

9.3.1 Introduction

Lopit has a range of constructions based on the comitative preposition /xɔ/, ‘with’. These constructions all contain a verb, a subject NP and an oblique NP which is in a prepositional phrase headed by the preposition /xɔ/. I distinguish between ‘normal comitative’ constructions and ‘inclusory’ constructions (ICs). Normal comitative constructions exhibit participant indexing on the verb. Inclusory constructions (ICs) show participant indexing between the verb and a superset comprising the subject and object NP.

The person indexing in an IC is determined by the NP which is higher on the person hierarchy. I have identified two kinds of ICs, which I call ‘normal’ and ‘special’. In a normal IC, both the subject NP and the oblique NP are present and the subject NP is higher on the person hierarchy than the oblique NP. In a special IC, the subject NP is not present in the clause, but is topicalised. The subject NP is lower on the hierarchy than the oblique NP.

In the following section, 9.3.2, I discuss normal comitative constructions. Inclusory constructions, both normal and special, are discussed in sections 9.3.3 to 9.3.6. ICs in Eastern Nilotic languages are discussed in section 9.3.7.

9.3.2 Normal comitative constructions

Lopit can be regarded as a WITH-language, following the terminology of Stassen (2000), who distinguishes AND- and WITH-languages. A WITH-language is one which uses the “comitative strategy”. Under this strategy, “the two participants in an event are morphosyntactically encoded as NPs of unequal structural rank. While one of the NPs can take any case role, the other NP is invariably encoded as the head of an oblique NP” (2000, p. 18). As a result there is only singular indexing on the verb.

An example is given in (811). The morpheme /xɔ/ is the comitative marker ‘with’ and can be described as the “marker for accompaniment” (Haspelmath, 2007, p. 4). The relationship between the NPs [nàŋ] and [lìjè] is comitative, not conjunctive. This is because the second
person pronoun is marked in the absolutive case and part of an oblique phrase or comitative NP [xɔ̀ iǰè]. In addition, the verb indexes in person and number only with the subject. If this were conjunctive coordination, one would expect plural indexing on the verb (i.e. /ei-rex-o/, ‘1PL-be.close.IPFV’).

(811) ḣ-rex-ó náŋ xɔ̀ =iǰè
    1SG-be.close-IPFV 1SG.NOM with =2SG.ABS
    ‘I and you are close. (lit. I’m close with you)’   DC:06:04

A similar example is shown in (812) with the second person verb, in the neutral aspect.

(812) f-rek iǰé xɔ̀ =náŋ
    2-be.close.N 2SG.NOM with =1SG.ABS
    ‘You and I are close. (lit. you are close with me)’   DC:08:00

The normal comitative construction is quite common and is often used with symmetrical verbs like ‘meet’, ‘reconcile’ and ‘play’. An example is given in (813) with the verb /imora/, ‘be reconciled’. However, comitative constructions can also be used with motion verbs, as shown in (814) with the singular verb /wu/, ‘go.SG’. Note that there is person and number indexing between the verb and the subject NP.

(813) a-ímorà náŋ xɔ̀ =lɔ̂xídɔ̀ŋ
    1SG-be.reconciled 1SG.NOM with =Lohidong.ABS
    ‘I made peace with Lohidong.’   AR:15:14

(814) í-wú íǰé xɔ̀ =náŋ
    2-go.SG 2SG.NOM with =1SG.ABS
    ‘You are going with me.’   DE:17:04

In fact, I have not found an example where coordinating NPs are subjects of a verb (i.e. both in the nominative case). Sometimes they are both in the absolutive case. In the following example, there are two noun phrases are [bùk le-iǰíŋ] and [bùk nà xít:ɔ́k]. The NP [bùk le-iǰíŋ] is the object of the verb [aíétà] and the NP [bùk nà xít:ɔ́k] is in the oblique (prepositional) phrase [xɔ̀ bùk nà xít:ɔ́k], ‘with a large book’. This indicates that they are "encoded as NPs of unequal structural rank", as discussed above.

(815) a-jeítà náŋ bùk le-iǰíŋ xɔ̀ =bùk nà xít:ɔ́k
    1SG-have 1SG.NOM buk.ABS le-itíŋ M-small with =book.ABS of.F large
    ‘I have a small book and a large book.’   BG:38:00?
When I have tried to elicit coordinating NPs as subjects of the verb, which was the case with (816) and (817), I have always recorded comitative constructions. On this basis Lopit can be regarded as a strongly WITH-language. Stassen reports that there is a strong tendency such that “if a language has WITH-status, it will tend to be non-tensed” (2000, p. 46). This is the case for Lopit which has no grammatical tense (see section 6.3). It shares this property with many other Sub-Saharan African languages (Stassen, 2000, p. 46).

Some more examples of comitative constructions are given in (816) and (817).

(816) e-idírítá lúxidìŋ xɔ = íbàlà
3-elope Lohidong.NOM with = Ibala.ABS
‘Lohidong and Ibala eloped.’ (‘Lohidong eloped with Ibala’)  BD:12:25

(817) e-íríbò ińɛ xɔ = lúxidìŋ
3-fight 3SG.NOM with = Lohidong.ABS
‘He and Lohidong are fighting.’ (lit. He is fighting with Lohidong) AP18:16

The comitative strategy is used in Otuho (Muratori, 1938, p. 353) and Maa (Tucker & Mpaayei, 1955, p. 214) as well as Turkana (Dimmendaal, 1983b, p. 366). The following table shows the various forms of the comitative morpheme (i.e. ‘with’) in several languages. There is a strong similarity across these languages.

<table>
<thead>
<tr>
<th>Table 9-2: Comitative linkers in Eastern Nilotic languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lopit</td>
</tr>
<tr>
<td>xɔ</td>
</tr>
</tbody>
</table>

9.3.3 Inclusory constructions

There are, however, other constructions involving the comitative morpheme /xɔ/ which enable to speaker to indicate that there is more than one person engaged in the activity. I call these inclusory constructions (Haspelmath, 2007, p. 33; Lichtenberk, 2000). Other terms are ‘verb-coded coordinations’ (Schwartz, 1988b, p. 53) or ‘associated plurals’ (Moravcsik, 2003). Inclusory constructions involve non-singular indexing. This is illustrated in the following example which uses a verb which has different roots for singular and plural: /wu/, ‘go.SG’ and /fwo/, ‘go.PL’. In (818), the subject is [náŋ], ‘1SG.NOM’ but the verb takes plural subject marking. Note that the pronoun [ijè] (which might have been described as a coordinand, if there were coordination) takes the absolutive case and is in a prepositional phrase.
This strategy is not unusual amongst verb-initial WITH-languages which have number marking on their predicates (e.g. Turkana). This allows them “the possibility for creating a distinction between comitative and coordination-like constructions” which relies on “a contrast between singular and non-singular agreement” (Stassen, 2000, p. 32).

Another example, this time using the second person, is given with the pronoun [íjé], ‘2SG.NOM’, and a proper noun. The plural verb form /fwo/ is used here as well.

I classify the ICs in (818) and (819) as ‘normal’ inclusory constructions. The constructions contain a subject NP, an oblique NP and a verb which agrees with the superset formed by the referents of the two NPs. There is another kind of IC in Lopit which I call a ‘special’ inclusory construction, an example of which is given in (820). This IC is characterized by the absence of the (topicalised) subject NP. The special IC does have an oblique NP [xò nànj] and a verb which agrees with the superset formed by the referents of the two NPs, [eibón].

There are some factors which control agreement in ICs in Lopit and they are related to the position on the person hierarchy. The rules which describe the formation of these ICs, together with those describing the formation of normal comitative constructions, are illustrated in Table 9-3. The person of the referent of the subject NP is denoted as PSUB and the person of the referent of the oblique NP is denoted as POBL. The expression ‘person=higher of PSUB & POBL’ means that the verb agrees in person with the higher of PSUB & POBL.

These rules are discussed in detail in the following sections, particularly 9.3.5 and 9.3.6. Before discussing ICs in Lopit in depth, I will discuss the work carried out by some authors on inclusory constructions.
Table 9-3: Rules for the formation of comitative and inclusory constructions

<table>
<thead>
<tr>
<th>construction</th>
<th>rules for PSUB and POBL</th>
<th>subject NP</th>
<th>verb agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>normal comitative</td>
<td>PSUB and POBL unrestricted</td>
<td>present</td>
<td>with PSUB in number and person</td>
</tr>
<tr>
<td>normal inclusory</td>
<td>PSUB is higher on the person hierarchy than POBL</td>
<td>present</td>
<td>number = PL; person = higher of PSUB &amp; POBL</td>
</tr>
<tr>
<td>special inclusory</td>
<td>PSUB is lower on the person hierarchy than POBL</td>
<td>absent</td>
<td>number = PL; person = higher of PSUB &amp; POBL</td>
</tr>
</tbody>
</table>

Inclusory constructions are discussed by Lichtenberk (2000), Singer (2001), Haspelmath (2007, p. 33) and Schwartz (1988a, 1988b). In discussing inclusory constructions, it is useful to have the concept of a superset, which refers to the group and a subset, which refers to a member of the superset. Singer distinguishes ICs on whether the superset is represented by a free pronoun (Type 1), a bound pronominal (Type 2) or both (Type 3) (2001, p. 9). The Lopit ICs can be classified as Type 2.

Haspelmath makes a distinction between two broad types of ICs. In the first type, they are formed with NPs, whereby the inclusory conjunct (or the superset) is usually a non-singular personal pronoun (2007, p. 33)). This corresponds to Singer’s Type 1. In the second type, the inclusory pronominal element is a clitic pronoun or a coreference marker on the verb (2007, p. 34). This is the case in Lopit, where the superset is referred to by the bound pronominal on the verb: for example [ef], ‘1PL’ in example (818). This corresponds to Singer’s Type 2.

Lichtenberk describes inclusory constructions on the basis of two parameters. The first is whether or not the inclusory pronominal and the included NP form a syntactic construction, i.e. a phrase. If they do, the ICs are “phrasal” and otherwise they are “split”. The second parameter is whether or not there is a marker of the relation between the inclusory pronominal and the included NP. If there is a marker, the ICs are “explicit”, otherwise “implicit” (2000, p. 3). In Lichtenberk’s terms, Lopit ICs are split and explicit.

Schwartz distinguishes two types of IC, plural pronoun constructions (PPCs), equivalent to Singer’s Type 1 and verb coded coordination (VCCs), equivalent to Singer’s Type 2 (1988a, 1988b). In her discussion of verb-coded coordination, she highlights the concepts of syntactic and semantic coordination. Schwartz states that, in VCCs (or ICs such as (818) and (819)), “there is no syntactic coordination corresponding to the thematic dual coordination” (1988b, p. 53). She also states that the thematic coordinate interpretation is derived from the number and person information encoded in the verb combined with information found elsewhere in the clause about the noun phrases (1988b, p. 53). In the case of example (818), the number information is carried by the prefix [ef], ‘1PL’, and the plural verb stem [fwó], ‘go.PL’. The other information comes from the pronoun [nán],

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'1SG.NOM', and the comitative phrase [xɔ̀ ijɛ́], ‘with 2SG.ABS’, which are not coordinated syntactically but are two participants in the same thematic role. The grammatical function of [ijɛ́] is as an oblique.

In summary, there is reasonable agreement in the literature about the broad types of ICs, although different terminology is used. Lopit IC’s are characterised by verbal agreement with the ‘superset’ (Singer), the ‘inclusory conjunct’ (Haspelmath), the ‘inclusory pronominal’ (Lichtenberk), or with the ‘independent non-cordinated noun phrases’ (Schwartz).

9.3.4 The range of inclusory constructions

As discussed in 9.3.4, there two main kinds of inclusory constructions in Lopit, ‘normal’ and ‘special’ ICs. The range of normal ICs is discussed in this section and 9.3.5. Special ICs are discussed in section 9.3.6.

Normal ICs contrast both syntactically and semantically with the comitative construction, as shown in the following examples. In (821), the comitative construction with the singular verb which can be translated as ‘I stand with Lobong’; that is, the emphasis is more on the speaker than on both the speaker and Lobong. In the IC in (822), the emphasis is on both the speaker and Lobong. Thus, the alternation between the comitative and the IC constructions can be used pragmatically. In fact, it is the desire of the speaker to convey a sense of union (e.g. between [nàŋ] and [lɔ̀bɔ̀ŋ] in (822)) that is the motivation for the IC. The semantic difference between the two is seen in the differences in participant indexing. In (821), the indexing on the verb marks the first person singular while, in (822), the indexing marks the first person plural.

\[
\begin{align*}
(821) & \quad \text{á-pár} \quad \text{náŋ} \quad xɔ̀ = lɔ̀bɔ̀ŋ \\
 & \text{1SG-stand.N} \quad \text{1SG.NOM} \quad \text{with} = \text{Lobong.ABS} \\
 & \text{‘I stand with Lobong.’} \quad \text{DA:01:06:45}
\end{align*}
\]

\[
\begin{align*}
(822) & \quad \text{ef-pár} \quad \text{náŋ} \quad xɔ̀ = lɔ̀bɔ̀ŋ \\
 & \text{1PL-stand.N} \quad \text{1SG.NOM} \quad \text{with} = \text{Lobong.ABS} \\
 & \text{‘I and Lobong stand (together).’} (\text{lit. ‘We-stand I with Lobong’}) \quad \text{DA:01:06:35}
\end{align*}
\]

It is also possible to have ICs with imperative utterances and these can be distinguished from comitative constructions. Lopit distinguishes between singular and plural with its imperative prefixes (see section 6.6.1). An IC is shown in (823) with the plural imperative marker /tt-/ and the corresponding comitative construction is shown in (824) using the singular imperative marker /tt-/.

\[
\begin{align*}
(823) & \quad \text{tt-e-f-pár} \quad \text{náŋ} \quad xɔ̀ = lɔ̀bɔ̀ŋ \\
 & \text{Plural imperative} \quad \text{1SG.NOM} \quad \text{with} = \text{Lobong.ABS} \\
 & \text{‘We stand with Lobong.’} \quad \text{DA:01:06:45}
\end{align*}
\]

\[
\begin{align*}
(824) & \quad \text{tt-e-a-pár} \quad \text{náŋ} \quad xɔ̀ = lɔ̀bɔ̀ŋ \\
 & \text{Singular imperative} \quad \text{1SG.NOM} \quad \text{with} = \text{Lobong.ABS} \\
 & \text{‘I stand with Lobong.’} \quad \text{DA:01:06:35}
\end{align*}
\]
differences between ICs and normal comitative constructions. In (823), the speaker is instructing both the hearer and Lobong to move ‘over there’; i.e. two people are expected to move. In (824), the speaker is instructing the hearer to move ‘over there’ to be with Lobong; i.e. only one person is expected to move.

ICs in Lopit appear to be possible for a fairly wide range of verbs. They are quite common with stative and intransitive verbs, as illustrated in the following examples.

(823) ɪ́-párá ɪ́-jé xɔ̀=lɔ̀bɔ̀ŋ dèdè
IMP.2PL-stand 2SG.NOM with=Lobong.ABS over there
You and Lobong stand over there! DA:01:06:01

(824) té-párá ɪ́-jé xɔ̀=lɔ̀bɔ̀ŋ dèdè
IMP.2SG-stand 2SG.NOM with=Lobong.ABS over there
You stand over there with Lobong! DA:01:06:15

ICs are also possible with transitive verbs and can be used to coordinate subjects (agents) of transitive verbs. Examples of this are given with the verb /iːjɛn/, ‘know’, in (827) and the verb /wolo/, ‘see’, in (829). On the other hand, comitative constructions (with single agreement marking of the verb) are not possible. Examples showing this are given in (828) and (830).

(825) eí-wɔːn náŋ xò=ijè xò=tɔrɔmfìlé
1PL-exist 1SG.NOM with=2SG.ABS with=car.ABS
‘You and I have a car.’ DE:18:43

(826) eí-rá̃m-ìtà náŋ xò=xànàsì nàìnò
1PL-play-PROG 1SG.NOM with=sister.ABS my.F
I’m playing with my sister. (‘My sister and I are playing.’) DE:26:19

ICs are also possible with transitive verbs and can be used to coordinate subjects (agents) of transitive verbs. Examples of this are given with the verb /iːjɛn/, ‘know’, in (827) and the verb /wolo/, ‘see’, in (829). On the other hand, comitative constructions (with single agreement marking of the verb) are not possible. Examples showing this are given in (828) and (830).

(827) eí-iːjɛn.N náŋ xò=ijè lɔ̀xìdɔ̀ŋ
1PL-know.N 1SG.NOM with=2SG.ABS Lohidong.ABS
‘You and I know Lohidong.’ DS:50:10

(828) *á-iːjɛn náŋ xò=ijè lɔ̀xìdɔ̀ŋ
1SG-know.N 1SG.NOM with=2SG.ABS Lohidong.ABS
Attempted: ‘You and I know Lohidong.’ DS:50:19
If the speaker wants to use singular agreement on the verb, then he or she has to use a construction like that shown in (831), which is a restatement of (829) and (830).

\[(831) \text{á-wólô náŋ xàŋ x-i-wólô iǰè xàŋ} \]
1SG- see.N 1SG.NOM village.ABS 2SG.NOM play-CONT 2SG.ABS
‘I see the village and you see the village’ DS:51:29

Often it is difficult to distinguish between an IC and a comitative construction, especially with a second person subject. This is because most Lopit verbs do not have a plural root (like /wu/, ‘go.SG’ and /fwo/, ‘go.PL’) and because the second person singular and plural pronominal verbal prefixes are the same. The following utterance might be a comitative construction or it might be an IC. It is not possible to distinguish between the two options, since [ɪrámítà] could be glossed as ‘2SG-play-CONT’ or as ‘2PL-play-CONT’.

\[(832) \text{í-irám-ítà iǰè xɔ=xànsì} \]
2-play-CONT 2SG.NOM sister.ABS
‘You and the sister are playing.’ DE:24:52

ICs can be formed with more than two participants. When a third participant is added (e.g. /ibala/ in (833)), the linker /xɔxɔ/ is used. This is similar to what happens when there are three coordinated NPs, as shown in (790) above.

\[(833) \text{eí-pár náŋ xɔ=làxídǹg xɔjó ibàlà} \]
1PL-stand (in line) 1SG.NOM with=Lohidong.ABS and.then Ibala
‘I, Lohodong and Ibala stand in line.’ DA:01:03:59

ICs can also be observed in complement clauses (which are discussed in section 9.4). The IC in (834) is indicated by the use of the second person pronominal marker /i-/ and the plural verb root, /fwo/, ‘go.PL’ in the complement clause.

\[(834) \text{éí-wólô náŋ xò=iǰè iǰè xàŋ} \]
1PL- see.N 1SG.NOM with=2SG.ABS 2SG.ABS village.ABS
‘You and I see the village.’ DS:51:21

\[(830) *á-wólô náŋ xò=iǰè iǰè xàŋ \]
1SG- see.N 1SG.NOM with=2SG.ABS 2SG.ABS village.ABS
Attempted: ‘You and I see the village.’ DS:51:21
9.3.5 How participant indexation is controlled in inclusory constructions

There are some factors which control participant indexation on verbs in normal ICs in Lopit and these are related to the position on the person (or potentiality of agency) hierarchy. The person hierarchy assumed in this study is 1st person pronoun > 2nd person pronoun > 3rd person pronoun. The following rule is proposed for normal inclusory constructions.

(835) A normal IC can only be formed if the subject NP (nominative) is higher on the person hierarchy than the oblique NP (i.e. the one in the prepositional phrase).

Thus, in (836), the first person pronoun [nàŋ] precedes the second person pronoun [ijà]. When the pronouns are reversed, in (837), the IC is not acceptable.

(836) eí-fwó nàŋ xà = ijà
1PL-go.PL 1SG.NOM with = 2SG.ABS to = village.ABS
‘You and I go to the village.’ DO-9-05:11

(837) *eí-fwó ijà xà = nàŋ
1PL-go.PL 2SG.NOM with = 1SG.ABS to = village.ABS
Attempted: ‘You and I go to the village.’ DO-9-05:22

Another example is given with the first person pronoun /nàŋ/ and a proper noun /dente/ using the verb /lot/, ‘go.SG’; /fan/, ‘go.PL’. It is acceptable when the first person pronoun comes before the proper noun (838) but not the other way around (839).

(838) ef-fànù nàŋ xà = dèntè
1PL-come.PL 1SG.NOM with = Dente.ABS
‘Dente and I came.’ DO-9-09:29

(839) *ef-fànù dèntè xà = nàŋ
1PL-come.PL Dente.NOM with = 1SG.ABS
Attempted: ‘Dente and I came.’ DO-9-09:29

---

44 i.e. 1st pronoun > 2nd pronoun > 3rd pronoun (see e.g. (Dixon, 1979, p. 85))
This is a similar constraint to what Aissen reports in relation to plural pronoun constructions (PPCs): “the person of the adjunct cannot outrank the person of the pronominal head on the hierarchy 1 < 2 < 3” (1989, p. 530). Neither she nor Schwarz (1988b, 1988a) appear to make a similar comment about verb-coded coordinations (VCCs), which is how they would describe Lopit ICs. Nevertheless, the examples given in their papers which involve a subject NP and an oblique NP all conform to this hierarchy.

In Lopit, it appears that, in a normal IC, the subject pronoun cannot be deleted. Thus, it is possible to say (840) but not (841). This is in contrast to many of the examples from other languages cited in the literature mentioned above. It is also different to what happens in special ICs, which are discussed in the next section.

(840) eĩ-fwó  náŋ  xɔ=ɪŋɛ
     1PL-go.PL  1SG.NOM  with = 3SG.ABS
   ‘He and I went.’ (lit. We-went I with him) EK:24:13

(841) *eĩ-fwó  xɔ=ɪŋɛ
     1PL-go.PL  with = 3SG.ABS
   *‘He and I went.’ (lit. We-went with him) EG:05:00

9.3.6 A special kind of inclusory construction

As mentioned above, there is a second kind of IC in Lopit which I call ‘special’. Special ICs occur in situations where the subject is non-overt but is understood from the context of the discourse. The rules governing the formation of special inclusory construction were illustrated in Table 9-3. These rules can be described as follows:

(842) If the subject (nominative) NP is not present, but is topicalised, a special IC can be formed and the person marking on the verb is determined by the set consisting of the non-overt participant and the participant in the oblique clause. The verbal marking is with the number in this set and with the participant with the highest animacy ranking in the set. This construction is only possible if the non-overt subject NP is not higher on the person hierarchy than the NP in the oblique phrase.

In the following examples, a third person has already been mentioned in a conversation between the speaker and hearer. The speaker then asks some questions, i.e. ‘Are you and he drinking?’ (843) and ‘Did he speak with you?’ (844).

(843) x-i-mátá  xɔ=ɪjɛ̀  bálú
     Q-2-drink  with = 2SG.ABS  beer.ABS
   ‘Are you and he drinking?’ (lit. Are-you-drinking beer with you?) CO:20:28
In these examples, the verb shows second person marking, which suggests an inclusory construction. What is unusual is that there is no subject (nominative) pronoun. The second person pronoun /ije/ is in the comitative NP with absolutive case marking. The thematic coordination (of the third person previously mentioned and the hearer) is understood by the discourse participants and is reflected in the second person marking on the verb, so that ‘you’ and ‘he’ are considered to be a collective ‘you.PL’ by the speaker.

However, when the third person is mentioned overtly, the marking on the verb changes to third person. This is shown in (845). This is not an IC but rather a normal comitative construction. This is because the pronoun in the prepositional phrase, [iịe], ‘2SG.ABS’, is higher on the animacy hierarchy than the subject NP, [ɪɲɛ], ‘3SG.NOM’.

(845) x-ị-ịn  iịn  xò = iịn
Q-3-speak.PFV 3SG.NOM  with = 2SG.ABS
‘Did he speak with you?’ (lit. did-he-speak he with you?)  CO:17:34

If there were an IC, with the super-set of ‘you.PL’ (i.e. ‘you and he’), we would expect 2nd person marking on the verb. To conform to the animacy hierarchy in an IC, the NPs would be reversed to give the following utterance.

A similar situation involving the lack of a nominative pronoun is given in the second clause in the next example. In this case, pronoun in the comitative NP is first person and the marking on the verb /maŋa/, ‘live’, shows first person marking. Thus, the first person plural marking on the verb refers to ‘we’ as in ‘Lobong and I’.

(847) x-i-ịjèn  ịjè  lọbọ́n  ..e:  e-i-maŋa  xò  nàŋ  dè lọgọ́nọ́wáti
Q-2-know 2SG.NOM Lobong yes 1PL-live  with 1SG.ABS in Logonowati
‘Do you know Lobong? Yes, he and I lived in Logonowi.’  EG:03:00

Another example is given in (848) with the Class II verb, /iboŋ/, ‘meet’. The superset is ‘we’ as in ‘my brother and I’. Note that, in this case, the verb [eibọ́ŋ] could be glossed as e-i-ibọ́ŋ,
‘1PL-meet’, or e-ibóŋ, ‘3-meet’, since /iboŋ/ is a Class II verb. However, we know from example (847) and other examples in this section that there is plural marking on the verb.

An example of this kind of construction with a complement clause is shown in the following. Here, there is plural marking on the verb, which also indicates that this is an IC. The superset is [viktòr] and [ịjé] (‘Victor and you’), and we know that they are both going somewhere. This superset requires second person plural marking on the verb (i.e. /lifwo/).

The constructions in (843) and (844), and in the second clauses in (848) and (849), are examples of inclusory constructions. The use of the 2PL marking on the verb in examples (843), (844) and (849) indicates that the speaker is signalling coordination between the hearer and the already-mentioned third person. The key is that the third person is not mentioned overtly in the IC but is known to be coordinate with the second person singular pronoun. This is sufficient to give second person plural marking on the verb. That is, the second person plural marking on the verb is marking the second person plural inherent in the “you plus he” combination.

A similar interpretation can be made for the first person plural marking on the second clause in (848). The combination of the first person [nàŋ], ‘me’ and the known, but not overtly mentioned, [ịrásí lịtị], ‘my brother’ is resolved as the first person plural ‘we’, which is indicated on the verb pronominal marking /ei-iboŋ/, ‘1PL-meet’.

Further illustrations of this kind of construction are shown with first and third person examples in (850) and (851), which have a similar context to (849) above. In (850), the use of the first person plural marker, [eị], together with the plural verb stem, [fwo], indicates that it is an IC. In (851), the plural verb stem in the verb [lọfwọ] indicates that this utterance contains an IC.

(848) x-ị-jíèn ịjé ịrásí lịtị e: ei-iboŋ xà=nàŋ
Q-2-know 2SG.NOM brother my.M yes 1PL-meet with =1SG.ABS
‘Do you know my brother? Yes, he and I met.’ (lit. we-met with me)’  BH:09:16

(849) ọ-wọló pátrik viktòr 1-ị-fwó xà=ịjè
3-see.PFV Patrick Victor.ABS SBO-2-go.PL with =2SG.ABS
‘Patrick saw Victor going with you.’
(lit. ‘Patrick saw Victor you-PL-going with you.’)  CR:29:04

(850) ọ-wọló pátrik viktòr 1-ei-fwó xà=nàŋ
3-see.PFV Patrick Victor.ABS SBO-1PL-go.PL with =1SG.ABS
‘Patrick saw Victor going with me.’ (lit. ‘P saw V we-going with me.’)  DF:29:33
There are some other restrictions on the formation of these ICs. If example (848) is changed so that the NPs in the first clause are reversed (as in (852)), it is not possible to omit the subject pronoun. The second clause in (852) (i.e. [eibόŋ nάŋ xɔ̀ ɪ́ɲɛ̀]) is a normal IC. Example (853) was not accepted.

This is in line with what was described in relation to examples (840) and (841) above. It appears that it is not possible to have a special IC (i.e. with a non-overt subject NP) where the subject NP is higher in the person hierarchy than the NP in the oblique phrase. The subject NP must be present as shown in (840) and (852). In addition, it is clear from (844) and (845) that it is not possible to have an overt subject NP in a ‘special’ IC.

The situations under which special ICs can be formed are summarized in Table 9-4. An example of item (ii) in the table is given in (849). Here, the ‘absent NP’ is third person singular [viktόɾ], and the NP in the phrase with [xɔ̀] is second person singular [ijà]. The super set is understood to be [viktόɾ] and [ijà], i.e. second person plural. This is reflected in the marking marking on the verb [lífwό], ‘SBO-2-go.PL’.

<table>
<thead>
<tr>
<th>Table 9-4: Conditions under which special ICs are possible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absent NP</strong></td>
</tr>
<tr>
<td>(i) 2SG, 3SG</td>
</tr>
<tr>
<td>(ii) 3SG</td>
</tr>
<tr>
<td>(iii) 1SG</td>
</tr>
<tr>
<td>(iv) 3SG</td>
</tr>
<tr>
<td>(v) 1SG, 2SG</td>
</tr>
<tr>
<td>(vi) 3SG</td>
</tr>
</tbody>
</table>
Table 9-4 also lists two situations where ‘special ICs’ are not allowed (items (iii) and (v)). Special ICs do not occur when the non-overt subject NP is higher in the person hierarchy than the NP in the oblique phrase. The situation in (iii) was discussed in relation to examples (852) and (853) above.

9.3.7 Inclusory constructions in other Eastern Nilotic languages

Inclusory constructions are also observed in other Eastern Nilotic languages. The following example in Turkana is very similar to (818) above. Dimmendaal describes it as the “extraposition of subject noun phrases”. Here the “first person singular and third person singular both occur as the subject” and “the agreement marker on the verb used is ‘we’” (1983b, p. 405). Note that the third person pronoun, ŋɛsi, is in the absolutive case. Thus, as in Lopit, the first person singular and third person singular occur as the subject semantically but not syntactically.

(854) Turkana  ki-iruk-it̀  a-yʊŋ  ka`  ŋɛsi  
we-go.Asp   I(NOM)  with  him 
‘He and I are going.’ (Dimmendaal, 1983b, p. 405)

Otuho also has inclusory constructions, using the preposition ikɔ, ‘with’. The following two examples (my glossing) are given by Muratori (1938, p. 386). The first example has plural marking on the verb. The first person singular marking (a-) given in (856) is not acceptable, indicating that the verb agrees with the superset ‘we’ (i.e. ‘I and Peter’). Muratori states that a “singular subject (name or pronoun) requires the verb in the plural in connection with the conjunction ikɔ (with) followed by name or pronoun, or in composition with the personal pronoun” (1938, p. 369).

(855) Otuho  e-manya  nì  ikɔ  Petro  
1PL-live  1SG.NOM  with  Peter.ABS  
‘I live with Peter.’

(856) Otuho  *a-manya  nì  ikɔ  Petro  
1SG-live  1SG.NOM  with  Peter.ABS  
*‘I live with Peter.’

I have not observed ‘special’ inclusory constructions in other Eastern Nilotic languages. This is an area of interest for further research.
9.4 Complement clauses and complementation

9.4.1 Introduction

Complementation can be defined as “the syntactical situation that arises when a notional sentence or predication is an argument of a predicate...A predication can be viewed as an argument of a predicate if it functions as the subject or object of that predicate” (Noonan, 2007, p. 52).

Lopit has a range of complement clauses. There are sentence-like complement types, i.e. with clauses “that, without the complementizer, have roughly the same syntactic form as the main clause” (Noonan, 2007, p. 59). These are discussed in section 9.4.2. Lopit distinguishes between indicative verbs and verbs with modal prefixes (called ‘modal predicates' here) in relation to how complement clauses are formed. Complement clauses with modal predicates are sometimes not fully sentence-like. That is, they cannot always be independent. Lopit also has infinitive complement clauses; i.e. where there is no subject or object marking on the verb. These are presented in section 9.4.3.

Lopit distinguishes between logophoric and non-coreferential (or disjunctive) pronominal marking on the verb in the complement clause. Logophoricty is discussed in section 9.4.4. Section 9.4.5 discusses other kinds of complement clauses including those in indirect questions; in direct and indirect speech; and also those which can reflect the pragmatic intent of particular discourse situations.

The complementizer in Lopit is /xɪɟɔ/, which is probably a grammaticalisation of the verb /ɟɔ/, ‘say’. It could be glossed as /x-ɪ-ɟɔ/, ‘INF-PFV-say’, ‘to have said’, or as /xɪ-ɟɔ/, ‘INF-say’, ‘to say’, ‘saying’. The grammaticalisation of the verb ‘say’ as a complementizer is common across languages. Schachter & Shopen report that “a good many languages have a complementizer that is rather transparently derived from the verb meaning ‘say’” (2007, p. 49). Examples in a range of African languages are given by Heine & Kuteva (2002, p. 261) and some are shown in in Table 9-5. Note that the Maa object clause subordinator is similar to the Lopit complementizer.

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45 Noonan uses the term “subjunctive sentence-like complement types”, whereas I use the term “modal predicate sentence-like complement types”. See the discussion on modality, section 6.5.1.
Table 9-5: Examples of grammaticalizations of the verb ‘say’ into complementizers

<table>
<thead>
<tr>
<th>language</th>
<th>‘say’ verb</th>
<th>complementizer</th>
<th>type of complementizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baka (Ubangian)</td>
<td>pe</td>
<td>pe</td>
<td>‘that’ complementizer</td>
</tr>
<tr>
<td>Igbo (Volta-Niger)</td>
<td>ká</td>
<td>ká</td>
<td>‘that’ complementizer</td>
</tr>
<tr>
<td>Kwami (West Chadic)</td>
<td>gó</td>
<td>gó</td>
<td>‘that’ complementizer</td>
</tr>
<tr>
<td>Maa (Nilotic)</td>
<td>jó</td>
<td>ajó</td>
<td>object clause subordinator</td>
</tr>
<tr>
<td>Swahili (Bantu)</td>
<td>ku-amba</td>
<td>kwamba</td>
<td>complement clause subordinator</td>
</tr>
</tbody>
</table>

It should be noted that /xɪɟɔ/ has a different influence on word order and marking in the clause compared to other linking words based on the verb /ɟɔ/, ‘say’, (such as /xɔɟɔ/, ‘and then’ (section 9.2.2.3 above) and /lɔɟɔ/, ‘if’, ‘when’ (section 9.6.2.2 below)). With /xɪɟɔ/, the word order does not change, nor is the verb prefixed with the sequential marker /x-/ (as is the case with /xɔɟɔ/) or with the subordinate marker /l-/ (as is the case with /lɔɟɔ/). In addition, there is no person marking with /xɪɟɔ/ in contrast to /xɔɟɔ/ and /lɔɟɔ/ (see 9.2.2.3 and 9.6.2.2 respectively). This suggests that /xɪɟɔ/ is less verb-like than the other words based on the verb /ɟɔ/. It might be interpreted as a verbal noun, i.e. ‘saying’.

In general, the same kinds of complement constructions are found in other EN languages. Most of them use a complementizer based on the verb ‘say’. In the Lotuxo-Maa sub-group this verb has the root form jo. In Otuhu complement clauses, it appears that jo has a similar function to /xɪɟɔ/ in Lopit and, like in Lopit, it can be omitted (Muratori, 1938, p. 416). Reported (indirect) speech can be introduced by “ajo, jojo, and sometimes jo” (Muratori, 1938, p. 418).

Maa uses the infinitive form ajó (or its plural infinitive counterpart áajo) as the complementizer. It also has the word (i)ncere, ‘that’, which is described as a conjunction (Tucker & Mpaayei, 1955, p. 103). The word (i)ncere is also used to introduce a complement clause (Tucker & Mpaayei, 1955, p. 104).

Turkana has a range of subordinate constructions which include complement clauses. These can be clauses which follow a ‘complementizing’ verb (such as ‘want’, ‘find’, ‘say’). The complement clauses can be formed with or without the complementizer atamàrì (based on ma, ‘say’) (Dimmendaal, 1983b, p. 375). In Ateso, complement clauses are introduced by the complementizer be, ebe, ‘that’. This is undoubtedly related to the verb ‘say’ as illustrated in the entry ebekoi, ‘it is said’ from an English-Ateso dictionary (Loyola, 2007, p. 194).
9.4.2 Sentence-like complement clauses with finite verbs

9.4.2.1 Complementation with the complementizer

In this kind of complementation, the verb in the complement clause is finite and contains bound pronominal marking. This verb has no sequential marker (/x-/ or subordinating prefix /l-/ (except in focused constructions, see 7.2.3). The complement clause has a sentence-like structure, which, without the complementizer, has the same syntactic form as a main clause (i.e. usually with VSO word order).

The arguments of mental state verbs such as /iːjːen/, ‘know’, /gil/, ‘think’, are examples of prototypical complement clauses. The complement clause is marked with square brackets in the following three examples.

(857) á-iːjːén náŋ [xǐːxíː a-ːfa ɪnɛ tɔːxɔnì lɔ l-ːbɔːrɔ]
    1SG-know 1SG.NOM COMP 3-be 3SG.NOM person.ABS REL.M SBO-3SG-be.big
    ‘I know that he is a big man’.  11_09_08sesh1 at 00:04:45

(858) á-gil-ːk náŋ [xǐːxíː i-ːdáxá ɪːtɛ bì]
    1SG-think-IPFV-DAT 1SG.NOM COMP 2-eat 2PL.NOM indeed
    ‘I thought that you were eating.’  EL:06:08

(859) ɪná náŋ l-a-ːjːén [xǐːxíː ɛ-ːná xìmá xàŋ]
    not.be 1SG.NOM SBO-1SG-know COMP 3-consume fire.NOM village.ABS
    ‘I didn’t know that fire consumed the village.’  BL:25:31

For all these examples, the complement clause consists of the complementizer and an independent clause. For example, the independent clause in the complement clause in (857) is shown in (860).

(860) á-ːrá ɪnɛ tɔːxɔnì lɔ l-ːbɔːrɔ
    3-be 3SG.NOM person.ABS REL.M SBO-3SG-be.big
    ‘He is a big man’.

Sentence-like complement clauses can also occur with verbs with verbs inflected for modality, which are discussed in section 6.5 above. This is illustrated in (861) with the verb /ɪɡɛmə/, ‘work’, with the irrealis prefix /ŋai/. The complement clause [ɛ-ːnáɪɡɛmá ɪnɛ xɔtʊb], ‘he should have worked longer’, can function as an independent (or sentence-like) clause.

(861) á-iːjːén náŋ xǐːxíː ɛ-ːŋaɪɡɛmá ɪnɛ xɔtʊb
    1SG-know 1SG.NOM COMP 3-IRR-work 3SG.NOM longer
    ‘I knew he should (have) work(ed) longer.’  DB:10:21
The obligative prefix /te-/ is also used in complement clauses. In (862), it is used with the verb /inefa/, ‘catch’, ‘arrest’. It covers a broader modal meaning than just obligative and it includes such concepts as obligation, intention and desire. This prefix is discussed in section 6.5.5.

(862) é-bâŋ xîjó è-te-inéfá-ri xîjó 3-be.afraid COMP 3-OBL-catch-IT people.NOM
‘She is afraid that she will be arrested’. (lit. ‘She is afraid that people will arrest (her)’.) DV:12:22

9.4.2.2 Complementation without the complementizer

It is possible to have complementation without the complementizer. Example (863) is an expression of (859) without the complementizer. This can be regarded as a form of juxtaposition (see 9.1.1); i.e. a combination of the two independent clauses [ágilök nàŋ], ‘I thought’ and [ídáxá íteí bì], ‘you were eating’. The clause [ídáxá íteí bì] can be regarded as the paratactic complement (Noonan, 2007, p. 66).

(863) á-gíl-ò-k nàŋ [í-dáxá íteí bì] 1SG-think-IPFV-DAT 1SG.NOM 2-eat 2PL.NOM indeed
‘I thought you were eating.’ EL:07:16

Sentence-like complementation can also occur with verbs with verbs inflected for modality. This is illustrated in (864) which is an alternative way of expressing the meaning of (861). Example (864) is a juxtaposition of the two independent clauses [áijën nàŋ], ‘I know’ and [êŋaígémá îŋé xòtúb], ‘he should have worked longer’.

(864) á-ijën nàŋ è-ŋaí-igémá îŋé xòtúb 1SG-know 1SG.NOM 3-IRR-work 3SG.NOM longer
‘I knew he should (have) work(ed) longer.’ DB:11:40

Another example is shown with the potential modal predicate in the complement clause. The main clause is [êjɔ jjàŋ ìti tè tâjì nàŋfì], ‘my mum says from her heart’. The complement clause is [ãmâlôtù nàŋ à xàŋ], ‘I might come home’, and this is the object (complement) of the verb [ôjɔ], ‘3SG.say’, ‘says’. Note the clause [ãmâlôtù nàŋ à xàŋ] can also stand alone.

(865) êjɔ jjàŋ ìti tè=tâjì nàŋfì à-má-lôt-û nàŋ à=xàŋ 3-say mum.NOM my.F from=heart her.F 1-POT-come-VEN 1SG.NOM to=home
‘My mum hopes that I come home.’ (lit. ‘my mum says from her heart I might come home’) CV: 01:05:45

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As mentioned above, focussed constructions can be used in complement clauses. This can happen when the speaker wishes to associate the referent of the object in the main clause with contrastive focus. Thus, in (866), the speaker is saying that he/she wants ‘him to sing’ (and not someone else). This is discussed further in section 9.4.5.4.

(866) á-wák náŋ ínè l-ɔ́-idɔ̀lɔ̀  
1SG-want 1SG.NOM 3SG.ABS SBO-3-sing  
‘I want him to sing.’ (lit. ‘I want (that) he is singing.’) AD:44:31

9.4.3 Complement clauses with non-finite verbs and verbal nouns

Complement clauses can be constructed with an infinitive, i.e. with a verb which has no subject or object marking. The complement clause cannot be an independent clause. The complementizer /xɔŋ/ cannot be not used (it is only used in complement clauses with finite verbs). Infinitive complement clauses often occur with modality verbs like /kɛm/, ‘try’, /wak/, ‘want’ and aspectual verbs like /icak/, ‘start’. Examples of infinitives for the Class I verb /riŋa/, ‘watch’, and the Class II verb /idɔ́lɔ́/, ‘sing’ are given in (867) and (868). Note that the notional subjects of infinitives are equi-deleted. For example, the notional subject of the infinitive [ɾìŋà] in (867) is /nàŋ/, as would be found in the utterance [áɾìŋà nàŋ têlɛfísɔ́n], ‘I’m watching the television’. If the notional subject were expressed, a finite verb would be used.

(867) á-kɛm-a náŋ riŋà têlɛfísɔ́n  
1SG-try-IPFV 1SG.NOM INF.watch television.ABS  
‘I’m trying to watch television.’ EL:10:42

(868) á-wák náŋ x-ídɔ̀l-ɔ̀  
1SG-want 1SG.NOM INF-sing-IPFV  
‘I want to sing.’ CV:35:58

(869) e-icáx-á ínè lwáx-à nàŋ ɲɔ̀lɛ́ʔ  
3-start-IPFV 3SG.NOM INF.help-IPFV 1SG.ABS yesterday  
‘He started to help me yesterday.’ AY:38:11

Sometimes with these constructions, a derived form of the verb root is used in the infinitive. In these cases, the infinitive is marked with the prefix /ŋa-/ . This is normal for infinitives with derivational suffixes and is discussed in section 5.2.4. An example of this is given in (870), which is a variation of (868), in which the root of the verb /idɔ́lɔ́/, ‘sing’ has the dative/applicative suffix /-k/.

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Another example occurs when the itive suffix /-ei/ is placed on the reduplicated Class II verb /itotor/, ‘turn’, in (871).

(871) á-wák nāŋ ṣa-itotor-ei kùrā
1SG-want 1SG.NOM INF-roll-IT ball.ABS

‘I want to roll the ball (towards someone).’  AY:41:37

Infinitives in complement clauses can be marked for aspect, as is the case for infinitives in general (see section 5.2.4). In (872), both the main clause verb /kɛm/ and the complement clause infinitive are marked for the perfective aspect. In example (873), by contrast, the main clause verb is marked in the neutral aspect and the infinitive is marked in the imperfective.

(872) e-i-kém ñè x-i-lwák nāŋ
3-PFV-try 3SG.NOM INF-PFV-help 1SG.ABS
‘He tried to help me.’  AY:32:24

(873) ë-kém ñè lwáx-à nāŋ
3-try.N 3SG.NOM INF.help-IPFV 1SG.ABS
‘He tries to help (helping) me.’  AY:34:44

Complement clauses can be formed with gerunds or verbal nouns (see section 4.5 on Verbal nouns). However, it is often difficult to distinguish between a verbal noun and an infinitive. In the following example, the word [lwáxà] could be either an infinitive or a verbal noun.

(874) e-icax-a ñè lwáxà nāŋ ṣìnë?
3-start-IPFV 3SG.NOM INF.help/VN.help.ABS 1SG.ABS yesterday
‘He tried to help/helping me yesterday.’  AY:38:11

In some circumstances, it is possible to see a difference. The verb /idima/, ‘build’ is used as a verbal noun in (875). This is the case because it is qualified by the prepositional phrase [nà xàbùtèrì], ‘of planes’. The expression [xidímà nà xàbùtèrì] could thus be considered to be a nominalized complement of the verb /icak/, ‘start’

(875) nǎi l-e-icák xidímà nà xàbùtèrì
who SBO-3-start.PFV VN.build.ABS of.F planes
‘Who started (the) making (of) planes?  BU:57:27
9.4.4 Logophoricity in complement clauses

Lopit distinguishes between logophoric and non-coreferential (or disjunctive) pronominal marking on the verb in the complement clause. The logophoric marker is used to indicate reference to “the author of the discourse or to a participant whose thoughts are reported” (Hagège, 1974; Stirling, 1993, p. 253). The logophoric markers in Lopit are /a-/ for the singular and /ɛɪ-/ for the plural; i.e. same as the first person subject markers.

Stirling states that “The central use of logophoric pronouns cross-linguistically is within clausal complements of verbs of saying” (1993, p. 259). However, many languages have a range of verbs which introduce logophoric contexts in the form of their causal complements (logocentric verbs). If a language broadens its range of logophoric contexts, it will do so according to the following implicational universal hierarchy (Stirling, 1993, p. 259).

(876) communication > thought > psychological state > perception

In fact, Lopit appears to cover all the categories in this hierarchy. In addition, Lopit has other verbs which are associated with logophoricity. The range of logophoric verbs so far identified in Lopit is listed in Table 9-6. I have included some ‘other verbs’ in the table since these are verbs which, when used with the complementizer, can trigger logophoricity. These are discussed further below (see (887) to (890)).

<table>
<thead>
<tr>
<th>communication</th>
<th>thought</th>
<th>psychological state</th>
<th>perception</th>
<th>other verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>jo</td>
<td>‘say’</td>
<td>gil ‘think’</td>
<td>baŋ ‘be afraid’</td>
<td>ruma ‘find’</td>
</tr>
<tr>
<td>ilɛma</td>
<td>‘tell’</td>
<td>muxo ‘be happy’</td>
<td>wu/ifwo ‘go’ SG/PL</td>
<td>icaxa ‘start’</td>
</tr>
</tbody>
</table>

In this section, I will describe the different forms of logophoric marking and present examples of the range of logophoric verbs. I will distinguish logophoric marking from indirect speech since there are some similarities. I will also discuss the concepts of ‘logophoric verbs’ and ‘logophoric trigger’ which will help explain why ‘other verbs’ are different from logophoric verbs. Finally, I will compare Lopit with other Nilotic languages and propose that logophoricity may be more common in Eastern Nilotic languages than is generally accepted.

The logophoric markers are /a-/; ‘LOG.SG’ for the singular and /ɛɪ-/; ‘LOG.PL’ for the plural. In addition, when the object is a discourse participant, the singular logophoric marker is /at-/; ‘LOG.SG.3>1’. An example with the pronominal marker /at-/ is given with the verb /lwak/, ‘help’ in (888) and (893) below.
The distinction between logophoric and disjunctive marking is shown in the following two examples. In (877), the referent of the pronoun [ɪɲɛ] in the complement clause is the same as the referent of the subject in the main clause. On the other hand, in (878), the referents of the subject pronouns are different.

(877) 3-say 3SG.NOM COMP LOG.SG-go FUT 3SG.NOM to=Torit
‘He, said he, will go to Torit.’ DB:03:09

(878) 3-say 3SG.NOM COMP 3-go FUT 3SG.NOM to=Torit
‘He, said that he, will go to Torit.’ DB:4:11

Logophoric marking is also used for the second person, as shown in (879).

(879) 2-say 2SG.NOM COMP LOG.SG-go FUT 2SG.NOM to=Torit
‘You, said that you, will go to Torit.’ DB:04:55

Examples for the plural are shown in (880) to (882), with the first two showing the distinction between the logophoric and disjunctive marking.

(880) 3-say 3PL.NOM COMP 3-go.PL FUT 3PL.NOM to=Juba
‘They, said they, will go to Juba.’ DE:02:00

(881) 3-say 3PL.NOM COMP LOG.PL-go.PL FUT 3PL.NOM to=Juba
‘They, said they, will go to Juba.’ DE:01:20

(882) 2-say 2PL.NOM COMP LOG.PL-go.PL FUT 2PL.NOM to=Juba
‘You(PL), said you(PL), will go to Juba.’ DE:02:53

As well as the verb /ɟɔ/, ‘say’, the logophoric pronominal marker is also used with a range of verbs including /gil/, ‘think’; /iːɛn/, ‘know’; and /ruma/, ‘find’. Some of these verbs are shown in the following two examples.

(883) 3-PVF-REDUP-think 3SG.NOM COMP LOG.SG-go FUT 3SG.NOM die.INF
‘He, thought he, was going to die.’ DB:07:41
The singular logophoric marker has the same form as the first person pronominal marker /a-/ and it needs to be demonstrated that there is in fact logophoric marking in Lopit and not just some form of reported speech. The use of the prefix /a- in [áwú] in (877) and (879) might be interpreted as direct speech (e.g. ‘he, said “I will go to Torit”’ in example (877)). However, this can not be reported speech because of pronoun [ɪɲɛ́] in (877).

It is also possible to have logophoric marking in a complement clause without the complementizer. This can happen with both the third and second person as shown in (885) and (886) respectively.

There are also verbs which can have logophoric contexts in their clausal complements but are not part of the hierarchy in (876). They are not logophoric verbs. Some of these are shown in the “other verbs” list in Table 9-6 and are illustrated in (887) to (890).
Generally, logophoricity is associated with verbs in the categories shown in the hierarchy of (876). Clements claims that the logophoric pronoun “is used exclusively to designate the individual (other than the speaker) whose speech, thought, feelings, or general state of consciousness are reported or reflected in the linguistic context in which the pronoun occurs” (1975, p. 141). It appears that the “other” verbs (i.e. /kɛm/, /wu/, /fwo/, /icak/) are not really logophoric verbs and that the logophoric markers are present because they are licensed by the presence of the complementizer (see (Dimmendaal, 2001, p. 133)). Stirling uses the term ‘logophoric trigger’, which can be a logophoric verb or a report opening complementizer (Stirling, 1993, p. 261).

In order to test this, I tried to elicit versions of examples (887) to (889) without the complementizer /xjɔ/. The consultant said that such utterances would not be acceptable (DF:01:01). For example, the consultant said that, if the word /xjɔ/ were not used in (888), one would have to use one of the following constructions, i.e. an infinitive form.

(891) ɛ-ɪ-kɛm ɪɲɛ x-ɪ-lwák nàŋ
3-PFV-try 3SG.NOM INF-PFV-help 1SG.ABS
‘He tried to help me.’  DF:00:39

(892) ɛ-ɪ-kɛm ɪɲɛ lwàxà nàŋ
3-PFV-try 3SG.NOM INF.help.IPVF 1SG.ABS
‘He tried to help me.’  DF:01:15

When the verb /jɔ/, ‘say’ was used with the verb /lwak/, ‘help’, it was possible, as expected, to be able to find the logophoric pronominal without the complementizer.

(893) ɪjɔ ɪjɛ aɪ-lwák ɪsó ɪjɛ nàŋ
2.PFV.say 2SG.NOM LOG.SG.2>1-help.N FUT 2SG.NOM 1SG.ABS
‘You said you will help me.’  DF:07:12

The examples (887) to (893) indicate that Lopit distinguishes between logophoric verbs and other verbs and that, for non-logophoric verbs, it is only possible to use the logophoric pronominals with the logophoric trigger /xjɔ/.

It is reported that the relevant domain for logophoric marking can extend beyond the sentence (Dimmendaal, 2001, p. 135; Stirling, 1993, p. 262). I have begun to test the extent to which logophoric contexts are constrained. All of the examples I have found are local to the logocentric trigger, i.e. in the clause following the logophoric verb and/or the
I tested a combination of sentences to see if logophoricity could extend across sentences. The following is a translation of the sentences “He said he will go to Torit on Monday. He will return to Juba on Wednesday.”

(894) 3-3j á-wú i-3j à = tòrít de = itàbštél 3SG.NOM LOG.SG-go FUT 3SG.NOM to = Torit on = Monday
‘He, said he, will go to Torit on Monday.’ DF:11:15

(895) xɔ́-ŋé x-o-ìtúw à = jùbà de = itàxúníxí and.then 3SG.NOM SEQ-3-return to = Juba on = Wednesday
‘On Wednesday he will return to Juba.’ DF:11:39

As is shown by the presence of the normal third person pronominal marker /o-/ on the verb [xoítúw] in (895), it appears the logophoricity does not carry across sentence boundaries. It is interesting to note that the word /xɔ́/, ‘and.then’, which might also be glossed as ‘SEQ-3-say’ does not trigger logophoricity.

Dimmendaal (2001, p. 152) reports that “logophoricity in the Nilotic branch within Nilo-Saharan is restricted to the Western Nilotic branch (as against Southern and Eastern Nilotic”). In those Western Nilotic languages (e.g. Lango, (Noonan, 1992, p. 226); Luwo, (Storch, 2014, p. 150)), the logophoric marker is e- and the disjunctive marker is o- for the third person. It is clear that Lopit does have logophoricity, although the logophoric markers are different to those used in Western Nilotic languages. The question arises whether other Eastern Nilotic languages have logophoricity. Dimmendaal gives some examples of reported speech in Turkana, which are reproduced here (2001, p. 146).

(896) Turkana to-lim(ù) ta-ma a-los-i 3:SUBS-tell 3:SUBS-say I-leave-ASP
1. ‘Then (s)he said: “I am leaving.”’
2. ‘Then (s)he, said (s)he, is leaving.’

(897) Turkana to-lim(ù) atanà(rI) e-los-i 3:SUBS-tell COMP 3-leave-ASP
‘Then (s)he, said (s)he, is leaving.’
Thus there might be some similarity between Lopit and Turkana in that the second interpretation of (896), ‘Then (s)he, said (s)he, is leaving’, is similar to (877). In both cases, the first person pronominal marker, a-, is used.

It may be that Otuho also has a similar kind of logophoricity to Lopit. The following example is similar to (881) in that the complement clause has the first person plural marker on the verb and the third person plural pronoun. It appears that, like Lopit, the plural logophoric marker has the same form as the first person plural pronominal marker. It should be noted that Muratori (1938, p. 419) describes this as indirect speech (‘discorso indiretto’).

(898) Otuho äatì ɗaŋ xul o-jori e-ra isi a xobwok
people all REL 3-say 1PL-be they PRT kings
‘those, who say that they are kings ’ (Muratori, 1938, p. 419)

Something similar also occurs in another Eastern Nilotic language, Karimojong (Teso-Turkana) (Curnow, 2002, p. 9). In the complement clause in (899), the first person singular marker on the verb is found with the third person singular pronoun. The Lopit construction in (877) is very similar.

(899) Karimojong àbò papà tolim èbè álózi iñèz morotó
AUX father say that 1SG.go.NPST 3SG Moronto
‘The father said that he was going to Moronto.’ (Novelli, 1985, p. 531)

This is discussed by Curnow (2002, p. 9), who states that this form of logophoric marking could be more common than reported. He says that “if the only examples collected by a researcher have no explicit pronoun forms in the subordinate clause, the use of first person logophoric marking will be mistaken for direct speech”. This could be an explanation of why Dimmendaal regards the use of direct speech in Turkana as “an alternative technique to logophoric marking of reducing ambiguity in co-referentiality across clauses (2001, p. 146)”. It may be that Turkana is such a strongly ‘pro-drop’ language that sentences with a subject pronoun in the complement clause are rare.

9.4.5 Other forms of complement clauses

9.4.5.1 Indirect questions

Indirect questions can be constructed as complement clauses with the complementizer /xɪŋ/ in the same manner as the complement clauses in section 9.4.2 above. The complement clause in the following example consists of the complementizer /xɪŋ/ and a direct question, i.e. [ŋaì leïsèřè ijè dòmfì], ‘who gave you the knife?’.
As discussed in section 7.7 on interrogative constructions, the question word can refer to a subject, object or oblique construction. In addition, the question word will occur in that place in the clause where the subject, object or oblique would normally be found (i.e. it occurs in situ). In (901), the question word [ŋai] refers to an object and thus follows the verb and the subject.

Similarly, in the following example, [ŋai] refers to the person in the oblique construction ('I gave the knife to the person') and comes at the end of the clause.

Indirect questions can also occur within direct questions, as shown in the following.

9.4.5.2 Reported speech

Reported speech usually involves complement clauses and uses such verbs as /ilema/, ‘tell’; /ọ/, ‘say’; /iniɲ/, ‘hear’ and /ifi/, ‘ask’. These verbs often take the complementizer /xịọ/.

The complement clause is usually similar to those described in section 9.4.2 in that, without the complementizer, the clause is an independent one. Thus, in (904), the clause, [eigúrò bálù], ‘they brew beer’ can exist independently.

Note that logophoric pronominal marking is used if the referent of the subject in the complement clause is the author of the discourse (see section 9.4.4).

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Reported speech can also be constructed without the complementizer.

9.4.5.3 Direct Speech

Direct speech in Lopit is licensed by the verbs /ɪlɛma/, ‘tell’, /ɟɔ/, ‘say’ and /ifi/, ‘ask’, and /itiraŋ/, ‘answer’. The most common verb is /ɟɔ/, as shown in the following.

The use of the complementizer /xɪɟɔ/ to introduce direct speech is optional. Some examples from the Arakori story are given in (908) and (909).

Imperatives can be licensed by verbs of speech and thought. In example (910), there is a slight pause after [nàŋ], ‘me’, which is then followed by the imperative expression [igurò bálú], ‘make beer!’.

The word /xɪɔ/ can be used in a variation of (910), as shown in (911). In this case, there is a slight pause after /xɪɔ/ before the imperative utterance. Although the word /xɪɔ/ can be regarded as a complementizer, it could also be interpreted as a verbal noun /xɪɔ/, ‘saying’.
Thus, (910) could be translated as ‘He tells all the people saying “Make beer!”’.

(911) e-ilémá-k xịjọ fúr xịjọ ìgùró balu
3-tell-DAT people.ABS all COMP IMP.PL.brew beer
‘He tells all the people “Make beer!”’

Very often in stories, the word /xɔɟɔ/ is used in such a way that it can be analysed as ‘SEQ-3-say’, and translated as ‘and he/she said’. This is shown in (912).

(912) x-ịjọ ụgwọ dè = iŋéjá xáti-dáxá
SEQ-3-say monkey.NOM to = 3SG.ABS IMP.1PL-eat
‘And the monkey said to him, “Let’s eat!”’ from ‘The squirrel, the leopard, the red monkey and the elephant’ (63)

Example (913) shows another possibility where the speech verb /jọ/ (in the infinitive form) is used with an oblique phrase /de xadori/ to introduce the direct speech.

(913) è-nà-ịjọ ịkùdọ x-ọ-ló-tù xịjọ dë = xádòrí mọtè lịtì
3-PFV-come squirrel SEQ-3-go-VEN INF.say to = tortoise friend my.M
‘The squirrel came to say to the tortoise, “My friend”’ from ‘The squirrel and the elephant’ (7)

**9.4.5.4 Complement types with special pragmatic applications**

As mentioned in section 9.4.2 above, the nature of the complement clause can change in certain discourse situations. To illustrate this, we can have two main clauses which represent different pragmatic situations. Example (914) is the unmarked situation whereas (915) is pragmatically marked by the placement of the subject in front of the verb, to indicate contrastive focus: ‘it was John (and not someone else) who took your gourd’. Note that fronting and cleft constructions are discussed in section 7.2.3.

(914) e-ịjári jön fèdè nainó
3-take.PFV John.ABS gourd your.F
‘John took your gourd.’ DE:11:52

(915) jön l-e-ịjári fèdè nainó
John.ABS SBO-3-take.PFV gourd your.F
‘(It was) John (who) took your gourd.’ DE:08:57

When these utterances function as complement clauses, example (914) can be expressed as (916) and example (915) can be expressed as (917) or (918).
These examples show that the word order conveying the pragmatic intent of a main clause is maintained if it is transformed into a complement clause.

9.5 Relative clauses

9.5.1 Introduction

The relative clause functions as a syntactic modifier of a noun phrase (the head) in the main clause. The relative clause, at the semantic level, will restrict the reference of the head. Relative clauses appear frequently in Lopit and generally follow the head noun (i.e. a post-nominal). The relative clause is introduced by a relative pronoun which agrees in number and gender with the head. The relative pronouns are listed in Table 9-7. The relative pronouns listed in the first two rows of Table 9-7 are the ones generally used. The relative pronouns in the latter two rows are used when the conversation participants have a shared knowledge of the referent of NP_{rel}. These latter group are discussed in section 9.5.4.

Table 9-7: Relative pronouns

<table>
<thead>
<tr>
<th>singular</th>
<th>plural</th>
<th>use</th>
</tr>
</thead>
<tbody>
<tr>
<td>masculine</td>
<td>lè, lèŋ, xûlè</td>
<td>unmarked</td>
</tr>
<tr>
<td>feminine</td>
<td>nà, nàŋ, xônà</td>
<td></td>
</tr>
<tr>
<td>masculine</td>
<td>fîlè, xôlè</td>
<td>When the conversation participants have a shared knowledge of the referent of NP_{rel}</td>
</tr>
<tr>
<td>feminine</td>
<td>îm'à, xônà</td>
<td></td>
</tr>
</tbody>
</table>

The verb in the relative clause is marked by the prefix /l-/ which I have glossed as a subordinate marker (SBO), as discussed in section 9.1.3. In this section, I delineate the relative clause with square brackets. I use the term relativized noun phrase (NP_{rel}) to describe the element within the relative clause that is coreferential with the head noun (after T. Payne (1997, p. 325)).
In this section, I provide an introduction to relative clauses, including a brief comparison with other Eastern Nilotic languages. Next, in section 9.5.2, I describe the structural relationships between the relative and the main clauses. The position of the relative clause is reasonably flexible in Lopit. In addition, headless or free relative clauses are allowed. In section 9.5.3, I discuss the range of grammatical functions that $NP_{rel}$ can have in the relative clause. In Lopit, $NP_{rel}$ can have a wide range of functions, including the oblique and possessive functions. This is followed by a discussion of the use of other relative pronouns (9.5.4) and a discussion of negation in relative clauses (9.5.5). Finally, in section 9.5.6, I discuss non-restrictive relative clauses.

An example of a relative clause with the female singular relative pronoun is shown in (919). The relative clauses are shown in square brackets in this section.

(919) á-séxò  nàŋ  tôxônî  [nà  l-ô-mweʃ]
1SG-seek 1SG.NOM  person.ABS  REL.F  SBO-3-be.sick
‘I’m looking for the woman who is sick.’  CM:00:50

Sometimes the relative pronoun can be omitted. From my observations, this only occurs in relative clauses which are used to express property concepts. Examples with and without the relative pronoun are given in (920).

(920) (a) tôxônî  lô  l-ô-ŋôdô  (b) tôxônî  l-ô-ŋôdô
person.ABS  SBO-3-be.blind  person.ABS  SBO-3-be.blind
‘blind man’ (lit. man who is blind’)  AE:01:56:38

The relative pronoun is often fused with a temporal adverb. In the following example, the relative pronoun /na/ (REL.F) is joined to the temporal adverb /ifa/, ‘remote past’, ‘more than a few weeks ago’, to give the word /nafa/.

(921) á-séxò  nàŋ  tôxônî  [nàfà  l-ô-mweʃ]
1SG-seek 1SG.NOM  person.ABS  REL.F.PST  SBO-3-be.sick
‘I’m looking for the woman who was sick (some time ago).’  BR:01:03:56

It appears that the temporal adverb /ŋâleʔ/, ‘yesterday’ can have a less specific meaning when placed in front of the verb in the relative clause. In (922), the speaker is clear that the man ‘was sick yesterday’. In the following example, (923), the man was sick sometime in the past, “you don’t know when”, “he may be better now” (BQ:22:26). This suggests that the combination of the relative pronoun and adverb (/lŋâleʔ/) has become lexicalised.

(922) tôxônî  [lô  l-ô-mweʃ  ŋâleʔ]  l-ô-ŋâinô  ò = sük
person.ABS  REL.M  SBO-3-be.sick  yesterday  SBO-3-go  to = market
‘The man who was sick yesterday went to the market.’  BQ:22:01
The insertion of temporal adverbs between the relative clause marker and the verb also occurs in Turkana, although in this language it is obligatory (Dimmendaal, 1983b, p. 309).

The relative pronouns in Lopit show close similarity with those in the related languages. The singular pronouns are *anna*, REL.F and *ɔllɔ*, REL.M (Murato ri, 1938, p. 80). Temporal relative pronouns (see section 9.5.4) are also used.

Turkana and Maa, on the other hand, have no separate relative pronoun although the relative pronouns have similar form (i.e. *na*, *lo*). Maa attaches the relative pronoun to the verb in the relative clause. This is not a subordinate marker in the same manner as the prefix */l/* in Lopit, since it shows gender agreement.

Turkana appears to have a similar form of relative clause marking. The marker is similar (na (feminine) or lo (masculine) in the singular) and it is prefixed to the verb in the relative clause as shown in (925).

9.5.2 The structural relationships between the relative and main clauses

The position of the relative clause in relation to the main clause often has some kind of restriction. I examined the possibilities for Lopit. The normal situation seems to be that the relative clause follows the main clause, as shown in the following.

(923) tɔxɔnĩ [lɛŋiɛʔ] l-ɔ-mwεl] l-ɛ-ŋaŋo ə = sùk
person.ABS REL.M.yesterday SBO-3-be.sick SBO-3-go to = market

‘The man who was sick yesterday (or a few days ago) went to the market.’ BQ:21:51

The relative pronouns in Otuho are similar to Lopit, except that they begin with a vowel. The singular pronoun are *anna*, REL.F and *ɔllɔ*, REL.M (Muratori, 1938, p. 80). Temporal relative pronouns (see section 9.5.4) are also used.

Turkana and Maa, on the other hand, have no separate relative pronoun although the relative pronouns have similar form (i.e. *na*, *lo*). Maa attaches the relative pronoun to the verb in the relative clause. This is not a subordinate marker in the same manner as the prefix */l/* in Lopit, since it shows gender agreement.

(924) Maa a-ĩshɔ ɔltʊŋaŋ [l-aa-tareto] ēnkaʃɛ
1SG-give man REL.M-1SG.O-help calf

‘I'll give a calf to the man who helped me.’ (Tucker & Mpaayei, 1955, p. 109)

Turkana appears to have a similar form of relative clause marking. The marker is similar (na (feminine) or lo (masculine) in the singular) and it is prefixed to the verb in the relative clause as shown in (925).

(925) Turkana e-dyà [lo-wɔoni-k-a-ides-i a-yɔŋ]
bo that-other.day-t-me-hit-A me

‘The boy that hit me the other day.’ (Dimmendaal, 1983b, p. 309)

(926) a-ísɔ náŋ bũk ɗ̣ɛ̃ = xaitjɛ́nànĩ [le l-ɛ-máŋá ɗ̣ɛ̃ = jũbã]
1SG-give 1SG.NOM buk.ABS to = teacher.ABS REL.M SBO-3-live in = Juba

‘I gave a book to the teacher who lives in Juba.’ AP:33:59
Sometimes, the relative clause is embedded in the main clause. In these cases, the relative clause follows the expression of the common argument (or head noun). In (927), the relative clause [nà lýólù náŋ ɲɒ̀ɭ] follows the common argument [búk].

\[
\begin{align*}
\text{(927)} & \quad \text{a-ísó náŋ búk [nà l-á-xól-ù náŋ ɲɒ̀ɭ?]} \\
& \quad \text{1SG-give 1SG.NOM buk.ABS REL.F SBO-1SG-buy.PFV-VEN 1SG.NOM yesterday} \\
& \quad \text{dè = lɔ̀xidaŋ} \\
& \quad \text{to = Lohidong.ABS} \\
& \quad \text{‘I gave the book which I bought yesterday to Lohidong.’ EK:46:21}
\end{align*}
\]

It seems that Lopit allows for some kinds of headless or free relative clauses. These are clauses which lack a head noun phrase (Andrews, 2007a, p. 213). These are alternatively described as condensed or fused relative clauses, in that a single form acts as both the relative pronoun and the common argument (Dixon, 2010b, p. 359). In (928), the word /nxá/, ‘those.F.far’, could be considered to be a word that is both the common argument and the relative pronoun. Alternatively, it could be said that the relative pronoun is omitted.

\[
\begin{align*}
\text{(928)} & \quad \text{á-jeťá náŋ nòxá [l-ò-wák xaisúxòní]} \\
& \quad \text{1SG-have 1SG.NOM those.F.PL SBO-3-want driver.NOM} \\
& \quad \text{‘I have what the driver wanted. (lit. I have those the driver wanted)’ CY:37:13}
\end{align*}
\]

Example (928) might be regarded as a shortened form of (929), which contains the full noun phrase [sánŋ nòxá], ‘those things’.

\[
\begin{align*}
\text{(929)} & \quad \text{á-jeťá náŋ sánŋ nòxá [l-ò-wák xaisúxòní]} \\
& \quad \text{1SG-have 1SG.NOM things.ABS those.F.PL SBO-3-want driver.NOM} \\
& \quad \text{‘I have what the driver wanted. (lit. I have those things the driver wanted).’ EH:42:26}
\end{align*}
\]

It is also possible to construct an example with similar meaning to (929) without any part of the noun phrase [sánŋ nòxá]. This is shown in (930), where the relative pronoun /xuna/, PL.RELF, is used. This could be considered to be a headless relative clause.

\[
\begin{align*}
\text{(930)} & \quad \text{á-jeťá náŋ [xùná l-ò-wák xaisúxòní]} \\
& \quad \text{1SG-have 1SG.NOM REL.F.PL SBO-3-want driver.NOM} \\
& \quad \text{‘I have what the driver wanted. (lit. I have that the driver wanted.)’ EH:42:26}
\end{align*}
\]

It is not possible to have both the demonstrative /nxá/ and the relative pronoun /xuna/ in this utterance. It appears that, when the demonstrative is used, it also functions as the relative pronoun and the relative pronoun /xuna/ is not permitted.
It is also possible to form similar headless relative clauses with property verbs. In the following example the noun /xito/, ‘child’, in the second part of the utterance is optional. That is, it seems possible to have the relative clause [nà lômwei bǐ], ‘who is happy’, without a head noun, but still with the preposition /de/. This may be possible because there is a similar construction in the first part of the utterance, [dè xító nà lômwei bǐ], ‘to the child who is ill’. This may provide enough context so that the second /xito/ is not necessary.

9.5.3 The range of functions of NP_{rel} in the relative clause

The head of the relative clause can have a range of grammatical functions in the relative clause. These functions can be the subject, object, oblique and possessive, examples of which are given in this section.

As shown in (933), the head of the relative clause can have the function of the subject in the relative clause (the NP is [àkim]).

(933) á-rá táxónì líá àkim [lè l-è-máná dè=jùbà]
    3-be person.NOM that.M doctor REL.M SBO-3-live in=Juba
    ‘That man is a doctor who lives in Juba.’ 2011.09.01sesh4

It can have the role of agent in the relative clause as shown in (934). The head of the relative clause is [xító].

(934) à-sèxò náŋ xító [le l-e-bák lòxiòŋŋ]
    1SG-seek 1SG.NOM child.ABS REL.M SBO-3-hit Lohidong.ABS
    ‘I’m looking for a boy who hit Lohidong.’ BO:38:52

In the following example, the noun phrase [mòlòŋ], ‘baboon’ is the head of the relative clause and it has the role of object (patient) in the relative clause.
(935) mɔ̀lɔŋ lînàŋ [nà l-ò-xóŋ xìwaró]
baboon.ABS this.F.COP REL.F SBO-3-bit.PFV leopard.NOM
‘This is the baboon that the leopard bit.’ BT:29:50

It is worth noting that, in (935), it is only the tonal (nominative) case marking on [xìwaró], ‘leopard’ that indicates that [mɔ̀lɔŋ] is the object. If /xìwarɔ/ had absolutive case marking, then [mɔ̀lɔŋ] would be interpreted as the subject of the relative clause. This is illustrated in (936).

(936) mɔ̀lɔŋ lînàŋ [nà l-ò-xóŋ xìwarò]
baboon.ABS this.F.COP REL.F SBO-3-bit.PFV leopard.ABS
‘This is the baboon that bit the leopard.’ BT:27:54

Another example of NP_rel as object is shown for the NP [xìjábità] in (937). Here the feminine plural form, [xòná], of the relative pronoun is used.

(937) á-wák nàŋ x-irò xìjábità [xòná l-e-isíérè xítéŋ ijóxoì]
1SG-want 1SG.NOM INF-speak stories REL.F.PL SBO-3-give cow 1PL.ABS
‘I want to tell the stories which the cow gives us.’ Cows and the Lopit

The NP_rel can have the function of object of a ditransitive verb ([àkim] is the head noun).

(938) ó-wóliò ìnè àkim [lè l-á-isíérè nàŋ bùk ìjòxoì]
3-see 3SG.NOM doctor REL.M SBO-1SG-give 1SG.NOM book.ABS yesterday
‘That man sees a doctor whom I gave a book yesterday’ (11_10_13sesh3.15 at 12:54)

The NP_rel can have the function of the oblique in the relative clause, as shown in (939).

(939) e-ijèn xàütîjenani xîtò [lè l-è-ríŋà ibáf dè=ìnè]
3-know teacher child REL.M SBO-3-look Ibai at = 3SG.ABS
‘The teacher knows the boy that Ibai looked at.’ (11_10_27sesh2 at 35:17)

What is interesting here is that the grammatical relation of NP_rel was able to be expressed using the resumptive pronoun [ìnè]. Resumptive pronouns are often associated with arguments which are more difficult to relativize (Andrews, 2007a, p. 220; Kroeger, 2005, p. 238).

The NP_rel can take the possessive role in the relative clause. In (940), the possessive pronoun [lèŋí], ‘his’, is not obligatory. This seems a little unusual since possessive roles are generally more difficult to relativize (see discussion on the accessibility hierarchy below). It appears that there is enough information in the rest of the utterance to be able to omit [lèŋí].
Sometimes, however, the relative pronoun does provide some information on the function. In (941), the feminine relative pronoun /na/ is used. This does not agree in gender with the subject of the main clause [tòxònǐ], ‘person’, in this case referring to a man. It agrees in gender with [nàŋòruwò], ‘wife’, as it would in the phrase [nàŋòruwò nà tòxònǐ], ‘wife of the man’. Thus the relative pronoun /na/ indicates that it is the possessum, and not the possessor, that is being relativized.

(941) tòxònǐ [nà 1-ò-túr nàŋòruwò] ìnà 1-ò-wú à = dá
person.ABS REL.F SBO-3-bear.twins wife not.be SBO-3-go to = there
‘A man whose wife had twins can’t go there’ Drum-making story

It is worth examining the Accessibility Hierarchy which governs the implication universals for the kinds of grammatical functions that the common argument (or NP_rel) can bear in the relative clause (Andrews, 2007b, p. 226; Comrie, 1989, p. 156). The Accessibility Hierarchy is given as:

(942) subject > direct object > indirect object > oblique > genitive > object of comparison

The basic claim is that the grammatical functions of a language are arranged in a hierarchy such that, if the common argument (or NP_rel) can bear a given grammatical function, it can bear all those functions that are higher (to the left) on the hierarchy. As the above examples show, it appears that relativisation in Lopit is highly accessible. Relativization generally follows the accessibility hierarchy, except that the genitive (or possessive) appears to be more accessible than the oblique (as is shown in the discussion of (940) and (939) respectively).

9.5.4 The use of other relative pronouns

Sometimes relative pronouns other than /le/ and /na/ are used. The demonstratives /leː/ and /maː/ can be used as relative pronouns when the conversation participants have a shared knowledge of the referent of the head NP (i.e. NP_rel). The following example, (943), refers to two people, a short one and a tall one, but they are only spoken about in general
The normal relative clause construction is used with the relative pronoun /lɛ/, ‘REL.M’.

(943) á-iǰén nán tòxɔnĩ [lɛ lɛ-ságá]
    1SG-know 1SG.NOM person.ABS REL.M SBO-3-be.tall
    īɲá l-á-rá [lɛ l-ó-súk]
    not.be SBO-3-be REL.M SBO-3-short

‘I know a tall man, not a short one.’  CN:16:11

The next few examples relate to a conversation between two speakers who are looking at two men, one of whom is tall and the other short. The first speaker asks the second if he knows the men in front of them.

(944) x-i-iǰén ījɛ xịjò lɔxá
    Q-2-know 2SG.NOM people.ABS those.M

‘Do you know those men?’  CN:21:12

The second speaker knows the tall man but not the short man. His (or her) answer in (945) uses the demonstrative /ilɛ/, ‘this.M’ rather than the normal relative pronoun /lɛ/.

(945) á-iǰén nán tòxɔnĩ [ilɛ lɛ-ságá]
    1SG-know 1SG.NOM person.ABS this.M SBO-3-be.tall
    īɲá l-á-rá [ilɛ l-ó-súk]
    not.be SBO-3-be this.M SBO-3-short

‘I know the tall man, not the short one.’  CN:12:35

Another possible answer is given in (946), again using the demonstrative /ilɛ/. In both (945) and (946), the consultant said that one would not use the expression [ilɛ lɛ-ságá]. That is, the relative pronoun /lɛ/ would not be used with /ilɛ/. The word /ilɛ/ functions as a (topicalised) relative pronoun and thus those clauses containing /ilɛ/ in (945) and (946) can be regarded as relative clauses.

(946) á-iǰén nán tòxɔnĩ [ilɛ lɛ-ságá]
    1SG-know 1SG.NOM person.ABS this.M SBO-3-be.tall

‘I know the tall one.’  CN:21:18

A further set of examples is given in the next few examples. The demonstrative or relative pronoun /mːa/, ‘this.F’ is used, as in (947), if the subject of the utterance is referring to some children who are nearby.
Negation in relative clauses

Negation in relative clauses appears to be straightforward. When the action in the relative clause in (949) is negated, the result is (950). The relative clause in (950) can be compared with the corresponding declarative clause [Ijá xiware ú lótóxo i kúdô], 'The leopard didn’t kill the squirrel’ in (951). The changes to form the negative relative clause are similar to those for other relative clauses. That is, the relative marker /na/ is inserted, the common argument [xiware] is omitted and the verb (in this case [lijá]) is prefixed with the subordinate marker.

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(947) ó-wáló ñé xìwàrò dè = xìtó [íná l-ò-mweí]
3-want 3SG.NOM INF-speak to = child this.F SBO-3-be.sick
I-ná l-á-rá dè = xìtó [íná l-ò-múñò bi]
not.be SBO-3-be to = child this.F SBO-3-be.happy indeed

‘He wants to speak to the sick girl not to the happy one.’ CO:09:18

If the children are not close by or the speaker does not know them, then the normal relative pronoun is used (i.e. [nà] in (948)).

(948) ó-wáló ñé xìwàrò dè = xìtó [nà l-ò-mweí]
3-want 3SG.NOM INF-speak to = child REL.F SBO-3-be.sick
I-ná l-á-rá dè = xìtó [nà l-ò-múñò bi]
not.be SBO-3-be to = child REL.F SBO-3-be.happy indeed

‘He wants to speak to a/the sick girl not to a/the happy one.’ CO:09:35

(949) ó-wèló ñé xìwàrò [na l-ò-tòxo-ì i kúdò]
3-see 3SG.NOM leopard.ABS REL.F SBO-3-kill-VEN squirrel.ABS

‘He saw the leopard that killed the squirrel.’ CM:28:20

(950) ó-wèló ñé xìwàrò [nà l-ná l-ò-tòxo-ì i kúdò]
3-see 3SG.NOM leopard.ABS REL.F SBO-not.be SBO-3-kill-VEN squirrel.ABS

‘He saw the leopard that didn’t kill the squirrel.’ CM:26:58

(951) ó-wèló ñé xìwàrò ìná xìwàrò l-ò-tòxo-ì i kúdò
3-see 3SG.NOM leopard.ABS not.be leopard.NOM SBO-3-kill-VEN squirrel

‘He saw the leopard. The leopard didn’t kill the squirrel.’
An example of a sentence where NP\textsubscript{rel} takes on the object function is given in (952). In this example, the head noun /xiwaru/, ‘leopard’, is relativized as the object of the verb /təxə/, ‘kill’. The subject of this verb, [ɪkʊdʊ], is placed in front of the matrix verb [lʊtəxʊl]; i.e. in the normal position of a negative clause.

(952) ó-wə̀lọ̀ jnjɛ̄ xìwàrù [nà l-ǐnjà ǐkʊdù l-ò-təxə-ʃ]
3-see 3SG.NOM leopard.ABS REL.F SBO-not.be squirrel.NOM SBO-3-kill-VEN
‘He saw the leopard that the squirrel didn’t kill.’ CM:26:58

9.5.6 Non-restrictive relative clauses

So far, I have discussed what are generally called “restrictive relative clauses”. There are also “non-restrictive (relative) clauses” in which the reference of the head or common argument is not restricted, but where the relative clause provides further, background information. Some linguists do not regard non-restrictive (relative) clauses as relative clauses (Andrews, 2007a, p. 208; Comrie, 1989, p. 143).

It appears that Lopit only makes the distinction between restrictive and non-restrictive relative clauses for activity verbs in the relative clause (i.e. not for stative verbs). The following example contains a restrictive relative clause with the stative verb /mwe/, ‘be ill’. The relative clause [nà ɲəlɛ? ləmweĩ], ‘who was sick yesterday’, is restricting the referent of the noun [xìtọ], ‘child’.

(953) è-wák jnjɛ̄ x-ɨrò dè=xìtọ [nà ɲəlɛ? l-ò-mweĩ]
3-want 3SG.NOM INF-speak to=child REL.F yesterday SBO-3-be.ill
‘He wants to speak to a/the girl who was sick yesterday.’ BE:39:14

The same relative clause is used in (954). It does not restrict the referent of the noun [ixídɔŋ], since the speaker and hearers all (presumably) know the person Ihidong. There does not appear to be any difference in the utterance intonation pattern.

(954) è-wák jnjɛ̄ x-ɨrò dè=ìxídɔŋ [nà ɲəlɛ? l-ò-mweĩ]
3-want 3SG.NOM INF-speak to=Ihidong REL.F yesterday SBO-3-be.ill
‘He wants to speak to Ihidong, who was sick yesterday.’ BE:40:06

However, when activity verbs are used in the subordinate clause, relative clauses do not appear to be possible. In (955), an utterance was attempted with the active verb /itu/, ‘return’, in which the relative clause does not restrict the reference of the head NP. This construction was not accepted by the consultant. Thus, Lopit does not allow non-restrictive relative clauses for activity verbs.

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However, it is possible to use the construction in (956). This is a complement clause construction where the complement clause is shown in square brackets. This kind of complement clause is discussed in section 9.4.5.4.

(956) ð-wóló iɲé [xɔtɔɲi nàɲí l-e-ìtí á=máná tè=jùbà]
3-see 3SG.NOM mother.ABS his REL.F SBO-3-return to=farm from=Juba

‘He saw his mother coming back to the farm from Juba.’ EH:45:46

9.6 Adverbial clauses

9.6.1 Introduction

Lopit has a range of adverbial clauses including temporal, locative and manner clauses. The general subordinating clause, which involves the subordinating prefix /l-/ , is often used in temporal adverbial clauses, which are discussed in section 9.6.2. This general subordinating construction can be used without any specific adverbial subordinators, such as the equivalent of ‘when’ or ‘since’. The context of the utterance is enough to enable the speaker to determine that the subordinate clause is temporal. In addition, the general subordinate clause is sometimes used with words like /nafa/, /ifa/, ‘when’. It is also used with connectors which are probably best described auxiliary verbs or grammaticalised auxiliary verbs such as /lɔɟɔ/, ‘when’. These connectors are placed at the start of the clause and the (main) verb, with the subordinating prefix attached, is placed after the subject.

Relative clauses are often used as adverbial clauses. Locative adverbial clauses are constructed as a relative clause with a head noun which can be translated as ‘place’ (section 9.6.3). The relative clause uses verbs like /wɔnt/, ‘exist’, /màŋa, ‘live’, ‘reside’, and /wɔŋe/, ‘sit’.

Manner adverbial clauses usually have the form of what I call the ‘general adverbial construction’. This construction comprises the word [àrà] (which can be translated as ‘like’) and a relative clause with a stative verb. The relative clause with a stative verb is the most common way of expressing property concepts in Lopit (see section 8.2). The expression [àrà nà], shortened to [ànà], or sometimes [à], can be translated as ‘like’, ‘as’, ‘in the manner of’, when combined with a relative clause. These clauses are discussed in section 9.6.4.
Other adverbial clauses (reason, result and purpose) are discussed in sections 9.6.5 to 9.6.7. At the end of the chapter in section 9.6.8, I have included a note on secondary predication. There are secondary predicates in Lopit and these have the same form as the ‘general adverbial construction’ although they have different functions.

Conditional clauses are also a type of adverbial clause. Because they form a rather large group, they are discussed separately, in section 9.7.

### 9.6.2 Temporal clauses

Temporal adverbial clauses in many languages are introduced by a temporal linking morpheme (equivalent to the English ‘when’, ‘as’, ‘while’, ‘since’, ‘before’). Lopit has some of these linkers, although some of them have significant verb-like properties (e.g. section 9.6.2.2). Often no specific conjunction or linking morphemes are used and the only indication is the subordinate marker /l-/ on the verb in the subordinate clause. This type of clause will be discussed first and will be followed by discussion of adverbial clauses which are formed with linking morphemes.

#### 9.6.2.1 Temporal clauses using the general subordinate construction

Lopit often uses a general subordinate construction as a temporal adverbial clause. The subordinate clause has the same word order and verb structure as an independent clause except that the verb has the subordinating prefix /l-. The clause cannot stand alone. Some examples are given in the next three examples, with the subordinate clause in square brackets.

(957) á-cá náŋ bi [l-óló-ù xàbù] 1SG-dance.IPVF 1SG.NOM indeed SBO-3-come-VEN chief.NOM ‘I was dancing when the chief arrived.’ Bi:35:35

(958) [l-áwón náŋ dè=tòrit] é-i-ná xímá xàŋ nà=ljàròk SBO-1SG-be 1SG.NOM in=Torit 3-PFV-eat fire village of=Losharuk ‘When I was in Torit, fire burned the village of Losharuk.’ BL:18:52

(959) é-xi-i-jóřà īɲé bi [l-o-bor xito moti] 3-PFV-be.angry 3SG.NOM indeed SBO-3-break child.NOM pot.ABS ‘He became angry when the child broke the pot.’ BZ:11:19

There is no explicit articulation of the temporal situation. The listener relies on the fact that the activity in the subordinate clause is linked to the activity in the main clause through the use of the subordinating prefix, as well as the general context of the discourse. These kinds
of constructions can also be used as conditionals and this type is discussed in section 9.7.2 below.

This general subordinate construction used in other Eastern Nilotic languages. For example, in Turkana, “temporal clauses indicating a contemporary situation (‘when’) are introduced by the feminine agreement marker {na-}” (Dimmendaal, 1983b, p. 392). Like Lopit, this construction can also be used for conditional clauses. An example is given in (960).

(960) Turkana na-à-naŋ-ì-à nà-wuyè à-tò-ryam-ù a-ki-riŋ k-e-pey-òr-i
when-l-reach-A-V at-home I-meet-VEN meat CON-3-roast-IT-V
‘When I came home, I found that the meat had just been roasted.’

Ateso also uses similar methods for temporal adverbial clauses. One of these involves the prefix n- and the other involves the prefix k-. Both introduce the subordinate clause (Loyola, 2007, p. 257).

9.6.2.2 /lɔŋ/, ‘when’

The word /lɔŋ/ is often used to introduce an adverbial clause as in (961), where it can be translated as ‘when’. It is derived from the verb /ŋ/, ‘say’ and can be glossed as /l-ɔŋ/-, SBO-3-say. It is verb-like in that it agrees in person with the subject of the subordinate clause. In addition, the word order differs from the normal VSO order and can be described as AUXSVO word order. The matrix verb in the subordinate clause is prefixed with the subordinate marker and is placed after the subject. The corresponding independent clause would be [ɔ̃pɔ́ŋá ŋɛ̀ ŋmòŋé?], ‘she bakes bread’.

(961) [lɔŋ ŋɛ̀ l-ɔ-ŋà ŋmòŋé?] ð-ŋàŋà dè=sàli ìmà
when.3 3SG.NOM SBO-3-bake bread.ABS 3-bake on=hearth.ABS this.F
‘When she makes bread, she bakes on this fireplace.’ BV:30:27

Another example, in which /lɔŋ/shows first person marking, is given in (962).

(962) [lajó nàŋ l-á-wú á=tòrít] á-bót nàŋ á=bólís
when.1SG 1SG.NOM SBO-1SG-go to=Torit 1SG-go.direct 1SG.NOM to=police
‘When I go to Torit, I will go straight to the police.’ BQ:14:20

9.6.2.3 /nafa/, /ifa/, ‘when’

The word /nafa/ is used to introduce an adverbial clause as in (963). The word /nafa/ is probably derived from [nà ìffá], which can be glossed as ‘of.F PST’ and translated as ‘when’, ‘at the time’, in the past’ (see section 8.3.1.1 for adverbs of time). In adverbial clauses with this morpheme, the verb is prefixed with the subordinate marker /l-/ and the normal VSO word order is used.
The adverb /ifa/, PST, ‘later’, ‘in the past’, ‘ago’, can also be used to introduce an adverbial clause, as shown in (964).

(964) [ffá l-é-lib-eí wàr] e-î-ʒó ìkùdò dò = lòmini PST SBO-3-be.good-IT hole.NOM 3-PFV-say squirrel to = leopard.ABS

‘When the hole was ready, the squirrel said to the leopard’ Squirrel story (102)

The combination /te nafa/, ‘from in the past’ can be also used in similar situations.

(965) ì-wùr íné xànà nàità [tè nàffá l-é-mànà íné dè = jùbà] 3-break 3SG.NOM arm my.F from when SBO-3-live 3SG.NOM at = Juba

‘He broke my arm when he was living in Juba.’ AG:37:45

It is possible to leave out the words /nafa/ or /ifa/, so that the subordinate clause is of a general nature and the hearer relies on the context to determine the meaning. This is shown in (966) and (967).

(966) [l-â-îbà nàŋ] e-icáxá íné pùrà nà ímû̀né? SBO-1SG-arrive 1SG.NOM 3-start 3SG.NOM bake.VN of.F bread.ABS

‘When I arrived she started making the bread.’ AD:01:12:51

(967) [l-ɔ-t:ɔxɔ x-ìdimà nà xàjì ìnà] SBO-3-finish VN-build of.F house.ABS that.F

é-xi-ilélèŋ íné tûbi xònà l-ɔ-lùgà 3SG-PFV-carry 3SG.NOM bricks PL.of.F SBO-3-be.many

‘When he finished building that house, he had carried many bricks.’ CK:35:01

9.6.2.4 /lefe/ ‘since’, ‘until’

The word /lefe/, ‘since’, ‘until’, can be described as a temporal linker. When it is used, the verb in the adverbial clause is not marked with the subordinate maker. The linker /lefe/ is used in two types of adverbial constructions. In the first (pragmatically unmarked) type, it is used in constructions where it links two clauses in which the second verb is marked with the sequential marker /x-/. In the second, it links an adverbial clause with the main clause. However, in this case, the second clause is a pragmatically marked construction and the second verb is marked with the subordinate marker /l-/, not the sequential marker /x-/.
Two examples of the first type are shown in (968) and (969). In these constructions, the adverbial clause is introduced by /lefe/ which is immediately followed by the verb. The word order in the adverbial clause following /lefe/ in (968) is the unmarked VSO order.

(968) ei-igém-á ñjòxoí lèfè x-ɔ-ì-dìm-à xádûfà?
1PL-work-IPFV 1PL.NOM until SEQ-1PL-build-IPFV drumstore.ABS
‘We work until we build the drumstore.’ DV:29:18

(969) ei-rómá ñjòxoí lèfè x-è-sán xaí
1PL-dig-IPFV 1PL.NOM until SEQ-3-rain rain.NOM
‘We dig until it rains.’ DV:09:48

The second type of construction is given in (970). This example has the marked construction [lefe xísọñ wùník lórọmà [ŋé], ‘until he found three cows’ (i.e. ‘until it was three cows that he found’). This second clause is pragmatically marked, as shown by the OVS word order and the use of the subordinate marker /l-/ on the verb. This construction is used by the speaker to indicate that it was three cows (not one or two) that he found. This kind of focussed construction is discussed in section 7.2.3.

(970) è-sèxò íŋé dè=tìm
3-search.PFV 3SG.NOM in=bush.ABS
lèfè xísọñ wùník l-ò-ròmà íŋé
until cows.ABS three SBO-3-find.PFV 3SG.NOM
‘He searched in the bush until he found three cows.’
(lit. ‘until (it was) three cows he found.’) DS:37:00

If the adverbial clause in (970), were used in its unmarked form, then the first type of construction would be used. This is shown in (971) where the second clause is introduced by the sequential marker /x-/ and has the unmarked VSO order [xòròmàři íŋé xísọñ wùník], ‘he found three cows’.

(971) è-sèxò íŋé dè=tìm
3-search.PFV 3SG.NOM in=bush.ABS
lèfè x-ò-ròmà-ri íŋé xísọñ wùník
until SEQ-3-find.PFV-IT 3SG.NOM cows.ABS three
‘He searched in the bush until he found three cows.’ DS:36:21

Another example of this second type of construction is given in (972) and it uses the marked construction [lèfè lòbósí wùník lòtúlòrłi], ‘until it was three pots that were broken’. This occurs in a story to indicate that breaking three pots was quite unexpected.
Some speakers will use the word /la\xada/, 'until', 'up to', as an adverbial conjunction. This word is borrowed from Juba Arabic, lahadi, 'till', 'until' (I. Smith & Morris, 2005). It is used in the adverbial clause [l\axad\ex\xan \m\et\xʔ], 'until daybreak' in (973). This clause has the same construction (linker - verb - subject) as with /le\efe/ in (969).

9.6.2.5 [\xar\a \nx\a], ‘after’

There are two different adverbial constructions using the words /ara na/. The more common is the adverbial clause constructed using the words [\ar\a \nx\a], which are usually translated as ‘like’. The words [\ar\a \nx\a] often occur in adverbial clauses of manner and are discussed in more detail in section 9.6.4.

The other construction with /ara na/ is [\ar\a \nx\a]. This has a different tonal pattern and functions as a temporal linker. As shown in (974) to (976), these words have the literal translation of ‘it is that’ but, in these constructions, can be translated as ‘after’. These words can also be shortened to [\an\a] (CZː40ː46).

(972) x-o-\i\n\ak \xuf\rak \n\a-d\um\u \n\a\b\o \l\ob\c \n\a\n
SEQ-3-repeat Ihurrak INF-take one pot.ABS that.F
l\efe \l\ob\si\n \w\u\n\ik \l\-\t:\x\l\-\o-\ri
until pots.ABS three SBO-3-break-MI-IT
‘And Ihurrak took another pot again until three pots were broken’ DS:11:04

(973) x-\x\-\c\a \l\ax\ad\a \x-\x-f\ax\an \m\o\t\x\ʔ?
SEQ-3-dance until SEQ-3-break morning.NOM
‘and they danced until daybreak’ (lit. ‘until morning breaks’) Arakori Story

(974) e\-\x\-\g\x\-\m\-\a \x-\r\a \n\a \l\-\x\-\t:\x\-\\x\\a \d\ax\a
1PL-work.IPFV 3-be REL.F SBO-1PL-finish VN.eat
‘We work after we finish eating (lit. we work it is that we finish eating).’ AM:56:09

(975) \x-\r\a \n\a \l-\x-r\i\x\x\o \x\ri\x\e
3-be REL.F SBO-3-be.dark night.NOM
‘after it gets dark, after night falls’ CZ:42:15

(976) \x-\r\a \n\a \l-\x-f\ax\an \m\o\t\x\ʔ?
3-be REL.F SBO-3-break morning.NOM
‘after daybreak (lit. morning breaks)’ CZ:42:19
9.6.2.6 Temporal adverbial concepts with clause juxtaposition

As discussed in section 9.2.2.1, clause juxtaposition can be used to combine two main clauses in order to convey temporal adverbial concepts like ‘before’, ‘while’. These constructions involve both the persisitive marker /lV- (see section 6.4.3.5) and the sequential marker /x- (see 9.1.2). In example (977), the speaker is requesting a walk while it is still cool.

(977) xáti-lòt-ò é-lé-x-ɛ-ilik
IMP.1PL-walk-IPFV 3-PER-SEQ-3-be.cold
‘Let’s walk while it’s still cool!’ (lit. ‘Let’s walk... it’s still cool.’) DE:08:19

9.6.3 Locative clauses

Lopit, like some other languages (Thompson et al., 2007, p. 249), uses a relative clause construction with a head noun which can be translated as ‘place’ for locative clauses. The relative clause uses verbs like /wɔːn/, ‘exist’, /mana/, ‘live’, reside’ and /wɔːn/, ‘sit’. Some examples are given in (978) and (979). The relative clauses are shown in square brackets.

(978) aí-bɔŋò dɛ = mé [nàfá l-ò-wòŋɛ́ ñbáti]
1>2-meet at = place.ABS REL.M.PST SBO-3-sit granary.NOM
‘I’ll meet you where the granary was.’ DI:45:47

(979) è-ilímà-k ñpɛ́já xaxjò xị́jò è-dúxà-rì xísọ́
3-tell-DAT 3SG.NOM cowherders.ABS COMP 3-take-IT cows.ABS
à mé [nà l-e-ịjɛ́n ñpɛ́já xị́jò à w:ɔ́n ìxúlá]
to place.ABS REL.F SBO-3-know 3SG.NOM COMP 3-be pasture.ABS
‘He tells the cowherders to take the cows to (a place) where he knows there is pasture.’ Cow narrative 20140525-3:42:01

In addition, it is possible to use a headless relative clause using the construction /a da/, ‘to there’. In this case, the relative pronoun is omitted.

(980) á-wù náŋ à = dà [l-ɛ- màpá-ri jón]
1SG-go 1SG.NOM to = there SBO-3-live-IT John
‘I’m going to where John lives.’ AC:12:45

9.6.4 Manner clauses

Manner clauses can have a verb construction (in the form of a relative clause) linked to the main clause by the word [àrà], ‘like’. I call this the general adverbial construction. It is somewhat similar to property stative verb (relative clause) construction, discussed in section
8.2.1. These constructions are compared in the next two examples. In the first example (the adverbial construction), the clause [àrà nà lèlìbà] modifies the verb /daxa/, ‘eat’. Note that [àrà nà] is often shortened to [ànà] and is glossed as ‘like’. Thus, the expression [nà lèlìbà], ‘which is good’, is a description of the eating, i.e. adverbial.

(981)  x-ò-dáxá  íxúlá  àrà  nà  l-è-lìbà  
SEQ-3-eat  pasture.ABS  like  REL.F  SBO-3-be.good  
‘and eat pasture well’  BE:02:30

In the second example (the property concept construction), the stative verb construction (i.e. the relative clause [nà lèlìbà], ‘which is good’) modifies the noun /ixula/, ‘pasture’. In this case the expression [nà lèlìbà], ‘which is good’, is a description of the pasture, i.e. adjectival.

(982)  x-ò-dáxá  íxúlá  nà  l-è-lìbà  
SEQ-3-eat  pasture.ABS  REL.F  SBO-3-be.good  
‘and eat good pasture’  BE:03:30

Some other examples are shown in the next two examples. As with (981), the adverbial clause is introduced by /ara na/ or /ana/ and contains a property stative verb in a relative clause construction (see section 3.2.2 for a discussion of property stative verbs). The property stative verb expresses the semantic content of the adverbial clause.

(983)  e-íbír  ínè  bònjòjìn  ànà  l-o-bús  
3-distribute  3SG.NOM  clothes  like  SBO-3-straight  
‘He distributed the clothes fairly.’  BU:29:32

(984)  ó-lót-ú  ínè  àdàxó  ijëxoí  àrà  nà  l-e-ijórià  bi  
3-go-VEN  3SG.NOM  towards  1PL.ABS  like  REL.F  SBO-3-be.angry  indeed  
‘He is coming towards us angrily.’  CA:03:09

These constructions could possibly be regarded as secondary predications, rather than adverbial constructions. This issue is discussed in section 9.6.8.

9.6.5 Reason clauses

Reason clauses are often expressed with causal coordination (see section 9.2.2.1). An example, using clause juxtaposition, is given in (985). Note that the verb in the second clause, [èbùrò], does not have the subordinate marker.

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Sometimes the word /ɪɟɔ/ is used as a causal subordinate linker. The following example is another way of saying what was said in (985) above. When /ɪɟɔ/ is used, the verb does not take a subordinating prefix /l-/ . This is the same situation as when /ɪɟɔ/ is used as a complementizer (see section 9.4.1).

(985) a-ídúrò nàŋ 3-bór āfə̀k
1SG-be.late 1SG.NOM 3-be.big traffic
‘I’m late because of the traffic.’ (lit. ‘I’m late. The traffic was big’) 20130501:17:30

9.6.6 Result clauses

There are subordinate result clauses in Lopit and these generally use the subordinating linker /na/, ‘so’, ‘as a result’, ‘wherefore’. The presence of the subordinate marker /l-/ on the negative verb [lánà] in (987) indicates that it is a subordinate clause. This use of /na/ appears to have a quite different meaning to other uses of /na/, which include the possession marker (‘of.F’, see section 3.3.1.4), the demonstrative (‘that.near.hearer.F’, see section 4.6.4.1) and the relative pronoun (REL.F, see section 9.5.1). In the following example, the second clause is something that happened as a result of what occurred in the first clause.

(987) á-gǐlō-k náŋ ɪɟɔ 1-á-dáxá ìtɛ̀ bi
1SG-think-DAT 1SG.NOM COMP 2- eat.N 2PL.NOM indeed
nà l-á-ɲá náŋ l-á-jǐŋ-ú à=xàjì
so SBO-1SG-not.be 1SG.NOM SBO-1SG-go.through-VEN to=house
‘I thought you were eating, so I didn’t come into the house’  EB:15:48

However, it is possible to have these constructions without the conjunction /na/. Note that the subordinate marker is still present in the second clause.

(988) á-gǐlō-k náŋ ɪɟɔ 1-á-dáxá ìtɛ̀ bi
1SG-think-DAT 1SG.NOM COMP 2- eat.N 2PL.NOM indeed
l-á-ɲá náŋ á-jǐŋ-ú à=xàjì
SBO-1SG-not.be 1SG.NOM 1SG-go-VEN to=house
‘I thought you were eating, so I didn’t come into the house.’ EB:15:32

It is also interesting to note that the order of the clauses can be reversed, as shown in the following two examples. Note that it is difficult to have a direct English translation with the
result clause first, as shown in (990). (It would probably be a causal clause in English, i.e. ‘Because people fight in South Sudan, I can’t go there on holiday’.)

(989) è-rém xíjó bi de South Sudan
3-fight.N people.NOM indeed in South Sudan
nà l-á-nà náŋ l-á-wú ada dè=xolidei
so SBO-1SG-not.be 1SG.NOM SBO-1SG-go there at=house
é-rém xíjó bi dè South Sudan
3-fight.N people.NOM indeed in South Sudan

‘People fight in South Sudan, so I can’t go there on holiday.’ EB:18:38

(990) nà l-á-nà náŋ l-á-wú ada à=xàjí
so SBO-1SG-not.be 1SG.NOM SBO-1SG-go there to=house
e-rém xíjó bi dè South Sudan
3-fight.N people.NOM indeed in South Sudan

‘People fight in South Sudan, so I can’t go there on holiday.’ EB:21:00

Note that it may be possible to gloss /na/ as a relativizer. In the Western Nilotic language Lango, the relativizer àmê is used in a headless relative clause construction to convey the sense of ‘after’, ‘as a result’ (Noonan, 1992, p. 242). It could be that something similar happens in Lopit.

9.6.7 Purpose clauses

Clauses of purpose can be constructed as complement clauses. There is no specific conjunction similar to ‘so that’ or ‘in order to’ in English. The complementizer /xì>j/ can be used, as shown in (991). The subordinate clause (without the complementizer) [aímjórí jàí], ‘(she) boils tea with it’, is an independent clause. This is similar to complement clauses, as discussed in section 9.4.2 above.

(991) è-ilá ǐné màtì xíjó a-ímjórí jàí
3-clean 3SG.NOM pot.ABS COMP LOG.SG-boil.IPFV-INS tea.ABS
‘She washed the pot in order to make tea.’ (lit. ‘that she boils tea with it’) DI:33:44

These constructions can also be made without the complementizer, shown in (992). This example could also be interpreted as two juxtaposed clauses: ‘I gave her the pot. She cleans it’.

(992) a-ísó náŋ ǐné màtì è-ilá
1SG-give 1SG.NOM 3SG.ABS pot.ABS 3-clean
‘I gave her the pot to clean.’ (lit. ‘I gave her the pot, she cleans it’) DI:40:04

There are somewhat unusual forms for these types of constructions when the first and second persons are used. The verb in the subordinate clause has the same form as the singular and
plural imperatives, including the same tonal patterns (which are given in Table 6-16 for Class I verbs) and I have glossed them as such in the following examples. It could be interpreted as a direct speech construction (e.g. ‘She gives us sorghum saying, “Eat!”’), where the complementizer /xìp/ can have the more literal translation of ‘saying’ (see section 9.4.1).

(993) e-isò ñé ijòxoí ñirijà (xìjò) ìtí-dàxà
3-give 3SG.NOM 1PL.ABS food.ABS COMP IMP.PL-eat
‘She gives us food to eat.’ ED:49:37

(994) e-isò ñé ñàŋ ñirijà (xìjò) tè-dàxà
3-give 3SG.NOM 1SG.ABS food.ABS COMP IMP.SG-eat
‘She gives me food to eat.’ ED:50:37

(995) e-isò ñé ijè ñirijà (xìjò) tè-dàxà
3-give 3SG.NOM 2SG.ABS food.ABS COMP IMP.SG-eat
‘She gives you food to eat.’ ED:54:34

These are in contrast to the third person form, shown in (996). This uses the obligative construction (section 6.5.5) instead of the imperative. As discussed in 6.5.5, the obligative prefix can convey a sense of intention, which appears to be the case in (996).

(996) e-isò ñé ícè ñirijà (xìjò) è-tè-dàxà
3-give 3SG.NOM 2SG.ABS food.ABS COMP 3-OBL-eat
‘She gives them food to eat.’ ED:53:31

Purpose clauses can also be constructed as general subordinate clauses (i.e. with the subordinate marker /l-/) using the instrumental suffixes /-ri/ and /-ije/. These prefixes are discussed in section 5.4.4. In the following two examples, the subject went to town in order to buy a cow (997) and to teach children (998).

(997) ò-wù ñé à = toùn l-e-itf-xólà-ri xítèŋ
3-go 3SG.NOM to = town SBO-3-CAUS-buy-IT cow.ABS
‘She went to town to sell a cow.’ AB:40:06

(998) ò-wù ñé à = toùn l-e-itf-ij:ún-àrí wùr:è
3-go 3SG.NOM to = town SBO-3-CAUS-know-IT children.ABS
‘He went to town to teach children.’ AB:43:49
9.6.8  A note on secondary predication

9.6.8.1  Introduction

Schultze-Berndt and Himmelmann (S & H) distinguish between depictive and adverbial constructions (2004, p. 79). Semantically, depictive constructions are participant-oriented and encode a physical or psychological state or condition (e.g. alive, drunk, raw, hot). Adverbial constructions are event-oriented and generally encode manner, location, and time.

S & H state that depictive secondary predicates “express an eventuality (e.g. a state) pertaining to one participant of the main predicate” (e.g. “I drink tea hot”) (2004, p. 60). They also state that “the difference between adverbials and depictives is that adverbials modify a predication rather than assigning a specific property to one participant of the main predicate” (2004, p. 60).

S & H also state that there are considerable overlaps between the two constructions cross-linguistically. Some expressions which convey typical adverbial content, such as manner and location, are clearly depictive in their morphosyntactic make-up. On the other hand, there are languages which do not have genuine depictive constructions and express the semantic content of a depictive in other ways. They list a number of criteria which can be used to define a depictive construction (2004, p. 77).

I examined a range of constructions in Lopit to examine whether there are adverbials or depictives and whether this classification can be determined semantically and/or syntactically. I concluded that Lopit does not distinguish syntactically between event-oriented (adverbial) and participant-oriented (depictive) constructions. I also concluded that Lopit does have semantic depictives and that these take the form of adverbial constructions. The reasons for these conclusions will now be discussed.

9.6.8.2  Event-oriented constructions

There are constructions in Lopit which have a main predicate and an expression which expresses manner (i.e. an event-oriented construction). This is discussed in section 9.6.4. The 'manner' expression contains a relative clause introduced by the word /ara/. The verb in the relative clause expresses the semantic content of the 'manner'. This overall construction differs from the normal property stative verb relative clause (without /ara/), where the RC modifies the noun. These constructions are compared in (999) and (1000). In the first example, the clause [àrà nà lèlèbà binó?] qualifies the verb /1ɪɾɔ/, ‘speak’.

(999) 1-ɪɾɔ  fje  iŋlís  àrà nà  lè-lèbà  binó?
2-speak  2SG.NOM  English  like  SBO-3-be.good  very
'You speak English very well.' AV:01:30
In the second example, the property concept construction (which uses the relative clause [nà lèlfà bìnóʔ], ‘which is very good’) modifies the noun [iŋlis], ‘English’. Thus, it seems that Lopit uses the expression /aɾa na/ or /ana/ to distinguish an event-oriented construction (‘you speak English very well’) from a property concept construction (‘you speak very good English’).

(1000) 1-írə ñjé iŋlis nà 1-lèlfà bìnóʔ
    2-speak 2SG.NOM English REL.F SBO-3-be.good very
    ‘You speak very good English.’ AV:01:45

Some other examples are shown in (1001) and (1002). As with (999), the verb in the relative clause expresses the semantic content of the construction.

(1001) e-fbìr ñnè bɔŋɔ̀jn ànà l-o-bùs
    3-distribute 3SG.NOM clothes like SBO-3-straight
    ‘He distributed the clothes fairly.’ BU:29:32

(1002) o-lot-u ñnè adaxo ìjòxoí a-ra na 1-e-iɔría bi
    3S-go-VEN 3SG.NOM towards 1PL.ABS 3-be REL.F SBO-3-be.angry indeed
    ‘He is coming towards us angrily.’ CA:03:09

Examples (999), (1001) and (1002) encode manner and could be described as semantically adverbal constructions. In relation to the S & H approach, the question is whether these constructions are syntactically adverbal or depictive. I will now examine some participant-oriented constructions.

**9.6.8.3 Participant-oriented constructions**

The following can be described as depictive constructions in that they encode physical states. Examples (1003) and (1004) are semantically depictive. For example, the statement in (1003) can be made by someone who refuses to take lukewarm tea because they like to drink their tea hot (ED:14:07).

(1003) ñí-màt nàŋ ʃàí ʃàrà nà l-ò-nòk
    1SG-drink.N 1SG.NOM tea.ABS like SBO-3-be.hot
    ‘I drink tea hot.’ ED:12:54

(1004) é-dàxà xiríŋò ʃàrà nà l-ò-wàr
    3-eat.N meat.ABS like SBO-3-be.alive
    ‘He eats meat raw.’ ED:27:28
Note that example (1004) is different from the property concept construction, ‘He ate raw meat’, which uses the relative clause construction [nà lòwá:̀r] and is shown in (1005).

(1005) ́-dáxá xíríŋò nà l-ò-wá:̀r
3-eat.N meat.ABS REL.F SBO-3-be.alive
‘He eats raw meat.’  ED:28:40

Examples (1003) and (1004) have the same form as the constructions in (981), (999), (1001) and (1002) (i.e. the general adverbial construction, as described in section 9.6.4). It thus appears that Lopit does not distinguish syntactically between the event-oriented and the participant-oriented construction. It might be possible to say that Lopit has secondary predicates which are in the form of adverbial constructions.

Another construction was examined. This could be described as a resultative secondary predicate: ‘He speared the warthog dead’ (at least in English). However, Lopit uses the sequential marker /x-/, 'SEQ' and it is probably best described as a coordination or consecutive construction (discussed in section 9.2.2.2). It does not appear to be a depictive. This is similar to some examples in Turkana with the ‘consecutive or narrative mood’ (Amha & Dimmendaal, 2005, p. 304).

(1006) ́-rém íné fótír x-ò-tóxo-i
3-spear 3SG.NOM warthog.ABS SEQ-3-kill-VEN
‘He speared the warthog dead.’ (lit. 'he speared the warthog and killed it') ED:16:31

I also sought translations of the sentence ‘He drove the car drunk’. Three different constructions were elicited. The first one, (1007), has the same form as those in examples (981) and (999) and can be considered to be an event-oriented adverbial construction. It could also be described a semantically depictive, similar to (1003) and (1004).

(1007) ́-jírà tòròmílè ànà ́-ibwó:̀tò
3-drive car.ABS like SBO-3-be.drunk
‘He drove the car drunk.’ ED:19:34

In example (1008), the word [xibwótó] is either an infinitive or a verbal noun. It is probably the latter (i.e. being drunk) and this example seems to be an adjunct construction ‘with NOUN’. It might be semantically similar to (1007) in that it describes a state or condition. It is a different construction to the adverbial/deportive constructions of (999), (1001), (1002), (1003) and (1004).

(1008) ́-jírà tòròmílè tè=x-ibwó:̀tò
3-drive car.ABS with=VN-be.drunk
‘He drove the car drunk (and he is drunk).’ ED:19:09
Example (1009) uses the word /iːja/, 'like' and is somewhat similar to (1007), except that
/iːja/ does not have the relative pronoun, /na/, and /iːja/ does not appear to be a verb. Given that [leibwótô] could also be interpreted as a conditional clause, the expression [iːja leibwótô] could be translated as 'as if he were drunk'. The consultant said that the driver need not necessarily be drunk, rather he drove 'like someone drunk' (DEː21ː32). This is another form of adverbial construction which is semantically adverbial, as opposed to (1007), which is semantically depictive.

(1009) é-jírà tòrmìlè iːja l-e-ibwótô
3-drive car.ABS like SBO-3-be.drunk
'He drove the car drunkenly.' ED:21:01

9.6.8.4 Secondary predication in other Eastern Nilotic languages
Amha and Dimmendaal describe depictives in some Nilotic and Omotic languages (2005). They give an example in Turkana, (1010), which is similar to (1004). The main difference is that Turkana uses what appears to be a simple verb construction for the 'state', i.e. 'raw' whereas Lopit uses the /aɾa na/ expression and the subordinate marker /l-/ (or, alternatively, it uses the /aɾa/ expression with the (property stative verb) relative clause).

(1010) Turkana à-ɲàm-è-te kec(i) akirîŋ è-jon
3.PST-eat-ASP-PL 3PL.NOM meat.ABS 3-be.raw
'They ate the meat raw.' (Amha & Dimmendaal, 2005, p. 303)

Note that Lopit does not have manner adverbs in the way that Turkana has. In Turkana one can distinguish between the depictive in (1011) and the manner adverb in (1012).

(1011) Turkana è-pès-e-ètè ṭësì è-ronò
3-kick-ASP-PL 3SG.ABS 3-be.bad:SG
'They kicked him/her/it badly.' (Amha & Dimmendaal, 2005, p. 303)

(1012) Turkana è-pès-e-ètè ṭësì ni-aronon(i)
3-kick-ASP-PL 3SG.ABS REL-badly
'They kicked him/her/it in a bad way.' (Amha & Dimmendaal, 2005, p. 303)

9.7 Conditional clauses
9.7.1 Introduction
A conditional sentence consists of a subordinate clause (protasis, P) which states some condition under which a main clause (apodosis, Q) holds. Conditionals have been classified
by Thompson, Longacre, & Hwang into two main groups, *reality* and *unreality* conditionals (2007, pp. 255–262). Reality conditionals refer to present, habitual or past situations. Unreality situations refer to predictive, hypothetical and counterfactual situations. I will use this classification in this study.

A typical Lopit conditional construction is shown in (1013). In this section, the protasis is shown in square brackets with the subscript P and the apodosis is shown in square brackets with the subscript Q.

\[(1013) \ [l-ô-wôn \ xôlñ]\_P \ [á-ma-flá \ iñò \ náñ]\_Q\]

SBO-3-be sun 1SG-POT-wash FUT 1SG.NOM

‘If there is time, I might wash.’ (Lit. ‘if there is sun, I might wash’)  BP:40:39

Lopit has three main ways of expressing conditionals. The first is the use of the subordinating marker /l-/ to signal a subordinating clause. The second is the use of the conjunction /lɔğa/ (form the verb /ɔğa/) which can take the meaning equivalent to the English ‘if’. This can be described as a subordinating morpheme (Thompson et al., 2007, p. 256). These first two methods are used for reality, predictive and hypothetical conditionals, but not for counterfactual conditionals. The third method is the use of specific modal forms such as the irrealis, /ŋai-/; the potential, /ma-/ and the conditional, /mai-/. This method is used for counterfactual conditionals and does not involve the use of the subordinating marker l- or the conjunction /lɔğa/ in the protasis.

Lopit also has some concessive conditionals. There are constructions for scalar (‘even if’) and alternative (‘whether or not’) conditionals (using Haspelmath & König’s terms (1998, p. 563)). Universal concessive conditionals (‘whatever’) and negative conditionals can be constructed using Arabic loan words. However, it appears that it is more usual to express the kinds of meanings conveyed in these sentences using ordinary conditionals.

Conditionals in Lopit have much in common with other Eastern Nilotic languages. However, Lopit appears to be the only one which is able to express conditionals with a subordinating marker which is not a special conditional marker.

The different types of conditional constructions will now be examined.

### 9.7.2 Conditionals involving the subordinating marker

There are many conditionals in which the protasis begins with a verb which is marked with the subordinating prefix /l-/. This prefix is often a general marker of subordination and is not just used for conditionals. It is discussed in section 9.1.3.
A range of examples of conditionals using the subordinate marker is given in the following examples. Example (1014) is a (habitual) reality conditional.

(1014) [l-í-làxâ-k íjé ímôné dè=sàli xòtúb] [jó-múrì]
SBO-2SG-leave-DAT 2SG.NOM bread.ABS in=oven.ABS too.long 3-burn
‘If you leave the bread in the oven too long, it burns.’ AZ:17:48

There are also conditionals of this format which are unreality conditionals. These can be hypothetical, as shown in (1013) above. That utterance refers to a possible, but not yet realised, event in the future. A negative hypothetical conditional clause can be expressed using the subordinate marker and the negative verb construction /ịɲa/, as shown in (1015).

(1015) [l-ịná xítég]p [ịná mànà]q
SBO-not.be cow.ABS not.be life
‘If there are no cattle, there is no life.’ Cow narrative 20140508-1:00:27

A predictive (unreal) conditional can also be expressed with a normal subordinate clause and two main clauses without any verbal modality as shown in (1016). The utterance in (1016) is made by a leader to a group of hunters chasing a leopard and the apodosis predicts what will happen if the protasis eventuates. To date, no counterfactual conditionals have been observed using the subordinate clause marker to introduce the protasis.

(1016) [l-í-dìjâk íte]p [e-ìsók ịsó xìjò x-e-ì-xòɲ kùlù]q
SBO-2-miss you.PL 3-finish FUT people.ABS SEQ-3-PFV-bite all
‘If you miss, he will kill the people and eat them all.’ Mountain hunting story

The clause order in conditionals can be reversed. Example (1017) has the reversed clause order to (1013). This is common in many languages (Comrie, 1986, p. 83). The clause order appears to be determined by discourse context.

(1017) [á-má-flá ịsó nànj]q [l-ò-w:ón xślọŋ]p
1SG-POT-wash FUT 1SG SBO-3-be sun
‘I might wash if there is time.’ BQ:10:30

Lopit has an ‘if..., then’ conditional construction in which both the protasis and apodosis have overt marking. This can be realised with the subordinating marker in the protasis and the coordinator /xɔŋ/ in the apodosis, as illustrated in (1018). This coordinator is discussed in section 9.2.2.3 above. When it is used, it is necessary to use the sequential marker /x-/ on the lexical verb.
Comrie states that overt apodosis marking often involves particles of pronominal origin (1986, p. 88). Whilst the coordinator /xɔɟɔ/ shows pronominal marking, its origin is verbal (/ɔɟ/, ‘say’). It is this meaning, together with the use of the sequential marker, /x-/, that characterise this coordinator as an apodosis marker.

9.7.3 Conditionals using specific verb forms in the protasis

There are ways of expressing conditional constructions without the use of the subordinate marker /l-/ or the conjunction /lɔŋ/ . One of these involves the use of the irrealis form of the verb in the protasis, using the irrealis prefix /ŋai-/ . The irrealis can be used to express the hypothetical as shown in (1019) and (1020). The sense in (1019) is that the potential event (‘choosing a book’) is quite likely to eventuate.

(1019) [è-lìfà]₃ [i-ŋai-nímò jìé bu₃]₃
3-be.good 2SG-IRR-choose 2SG.NOM book.ABS

‘It is good if you would choose a book.’, ‘It would be good if you chose a book.’
AF:1:15:11

(1020) [è-má-cá iŋé]₃ [è-ŋái-ijeítà iŋé iŋòttí]₃
3-POT-dance 3SG.NOM 3-IRR-have 3SG.NOM dancing things

‘She might dance if she had dancing things.’
BI:21:37

Counterfactual conditional constructions can also be expressed with the irrealis. The following utterance uses the irrealis in both the protasis and the apodosis.

(1021) [e-ŋái-ọna iŋe l-0-mwei]₃.....
3-IRR-not.be 3SG.NOM SBO-3-be.ill
[e-ŋái-ibọj iŋè xò=xìjò xòná l-3-łóŋà]₃
3-IRR-meet 3SG.NOM with=people.ABS REL.PL SBO-3-be.many

‘If he were not sick (lit. ‘Were he not sick’), he would have met many people.’
AD1:28:21

Another way of expressing conditionals is the use of the conditional/consequent marker /mai-/, glossed here as CON. In hypothetical constructions the conditional/consequent marker can be in both the protasis and the apodosis, as shown in (1022).
Counterfactual conditionals can be expressed with the verb in the conditional form in the protasis and in the irrealis form in the apodosis, as shown in (1023).

(1023) [è-maĩ-rá xiṭtɛ̄ xáńɔ́rɔ́], [á-ŋaï-xúrù nàbò x-á-jáma-ɾí] Q
3-CON-be cow bead 1SG-IRR-pick one SEQ-1SG-marry-INS

‘If a cow were a bead, I would pick one to marry with.’ AA:30:33

It appears that counterfactuals can only be made with the irrealis marker /ŋai-/ in the apodosis. However, it is not necessary to have a verb with a modality prefix (i.e. /ŋai-/, /ma-/, /mai-/ in the protasis. This is illustrated in the next two examples.

(1024) [á-ŋaï-pót nàŋ] Q [l-í-ŋà-ná fteí l-í-fánù] P
1SG-IRR-clean 1SG.NOM SBO-2-PFV-not.be 2PL.NOM SBO-2-come.PL

‘I would have cleaned if you didn’t come.’ CU:58:05

(1025) [è-ŋaï-bór íɲé gɪlàs] Q [l-é-ŋà ìbála l-e-itján-át-eí] P
3-IRR-break 3SG.NOM glass.ABS SBO-3-not.be Ibala SBO-3-move.away-IT

‘He would have broken the glass, if Ibala didn’t take it away.’ BX:11:47

A distinguishing feature of the use of /ŋai-/, /ma-/ and /mai-/ is that they do not require a subordinating marker when in a subordinating clause. This is in contrast to subordinating clauses without modality marking such as those presented in section 9.7.2. In addition, /ŋai-/, /ma-/ and /mai-/ are only used with hypothetical and counterfactual conditionals.

9.7.4 Negative conditionals

With negative conditionals, the main clause depends on a certain condition not being met (Thompson et al., 2007, p. 260). English uses the morpheme ‘unless’ to signal this negative condition. In Lopit, one can express a negative conditional in a similar way. (1026) is an example, although there is no Lopit word equivalent to ‘unless’ and the Arabic loan word ilei, ‘unless’ is used.

(1026) [iŋá náŋ l-á-wú à tɔɾít] Q........
not.be 1SG.NOM SBO-1SG-go to Torit

......[iíleí l-e-itík nàŋ xò = iŋé] P
unless SBO-1PL-go.together 1SG.NOM with = 2SG.ABS

‘I won’t go to Torit unless I and you go together.’ BU:03:55
The consultant stated that this construction would not always be used and that (1027) would be a more usual way of expressing it. This is a normal conditional and not a negative conditional. Here, the main clause depends on a certain condition being met, rather than a certain condition not being met. As was discussed in relation to examples (1013) to (1017) above, the construction in (1027) is one of the common ways of expressing conditionals in Lopit.

(1027) [ίɲá náŋ l-á-wú á=tɔrï]Q [l-í-ɲá íjé l-í-wú]P
not.be 1SG.NOM SBO-1SG-go to=Torit SBO-2-not.be 2SG.NOM SBO-2-go
‘I'm not going to Torit if you don't go.’  BU:03:55

Note that the subordinate marker /l-/ is used on the main verb in the apodosis (Q). This is because, in the negative construction in Lopit, the verb-like negator is placed at the front of the clause and the (main) verb is placed after the subject and is prefixed with /l-/ (see section 7.8 on negation).

### 9.7.5 Concessive conditional clauses

Concessive conditionals are often similar to ordinary conditionals but they carry additional presuppositions not signalled by ordinary conditionals. They are used to assert two propositions against the background assumption “that the relevant situations do not normally go together, i.e. that the situation described in one clause is an unfavourable condition for the situation described in the other (i.e., ‘if p then normally not-q’)” (Haspelmath & König, 1998, p. 566). Haspelmath and König have divided concessive conditionals into three types. These are scalar (‘even if’), alternative (‘whether or not’) and universal (‘whatever, however much’) concessive conditionals (1998, p. 563). They say that universal concessive conditionals are usually regarded as a variety of relative clauses and that alternative concessive conditionals are very often treated together with embedded interrogatives. Only scalar concessive conditionals are usually analysed as a specific type of conditional. Nevertheless, they state that all three types meet the semantic requirements of being both conditional and concessive.

Thompson et al., on the other hand, only consider one type of concessive conditional, which is what Haspelmath and König call the scalar type. In this type, the presuppositions carried by the conditional “match quite closely those carried by such contrary-to-expectation morphemes as the English even.” (2007, p. 261).

Lopit does not have a morpheme (or morphemes) similar to the English ‘even if’. However, it does have the morpheme /xidoŋ/, ‘even’, which is realised within the subordinate clause rather than at the start of the clause. (1028) is an example of a conditional using the irrealis
form of the verb in the subordinate clause. The presence of the word /xidoŋ/ indicates that, contrary to normal expectations, ‘I will go to Torit if it rains’.

\[(1028) \ [\text{e-ŋai-sa } \ \text{xidoŋ } \ \text{bi}]_P, \ \ [\text{a-wu } \ \text{naŋ } \ \text{a Torit}]_Q \]

\[3-\text{IRR-rain } \ \text{even } \ \text{indeed } 1\text{SG-go } 1\text{SG.NOM to Torit} \]

‘Even if it rains, I will go to Torit.’ (lit. ‘should it even rain, I go to Torit’) BT:55:09

The protasis in (1028) contains the irrealis form of the verb which indicates a hypothetical situation and is similar to (1021). Thus it could be said that Lopit has a form of the (scalar) concessive conditional.

Lopit also appears to have what Haspelmath & König describe as alternative concessive conditionals (i.e. ‘whether or not’ conditionals). Lopit does not have a word which could be translated as ‘or’. However, the sequential marker can be used together with the subordinate marker and the potential particle /ma/ as shown in (1029). It should be noted that the protasis in this example consists of two coordinated clauses [lèsá mà] and [xỳpá].

\[(1029) \ [\text{l-è-sá } \ \text{mà } \ \text{x-ʒ-ŋá}]_P, \ \ [\text{e-i-rɔm₃-k } \ \text{įjoxoi } \ \text{xíŋmɔŋ}]_Q \]

\[\text{SBO-3-rain } \ \text{POT } \ \text{SEQ-3-not.be } 1\text{PL-plant-DAT } 1\text{PL.NOM seeds.ABS} \]

‘Whether it rains or not (Lit. ‘if it might rain and not’), we will plant the seeds.’ BV:33:09

The protasis is a subordinate clause and has the literal translation of ‘it might rain and it might not’. The whole utterance conveys the sense that the speakers will plant the seeds regardless of whether it rains or not. Hence, it seems reasonable to conclude that Lopit has alternative concessive conditionals.

Lopit appears not to have a universal concessive conditional. The following example was considered because it can have the meaning of a ‘whenever’ conditional. However, the literal translation, given in (1030), is also a sensible English construction and, syntactically, the construction looks like a simple SVO clause with a relative clause modifying the subject [aí bálú]. In addition, the morpheme /ai/, ‘any’ is a loan word from the Arabic (aya, ‘any’).

\[(1030) \ \text{aí bálú } \ \text{[nà l-á-mát nàŋ]₃C } \ \text{e-ítí-uóṭó } \ \text{nàŋ } \ \text{any beer.ABS REL.F SBO-1SG-drink 1SG.NOM 3-CAUS-have.diarrhoea 1SG.ABS} \]

‘Whenever I drink beer, I get diarrhoea.’ (lit. ‘any beer I drink gives me diarrhoea’) BW:42:20

\[48 \text{ Note that the subject has absolutive marking in this situation since is is front of the verb.} \]
There are other ways in Lopit of expressing the semantic requirement of a universal concessive conditional. The following example can be interpreted as ‘Bring whatever cow you want!’ However, syntactically, it is an imperative clause with a relative clause expressing the concession meaning.

(1031) [i:jáni xîtêŋ] [nà l-ò-wák i:jè tàyʃ]RC
IMP.bring cow.ABS REL.F SBO-3-want 2SG.ABS heart.NOM
‘Bring whichever cow you want.’ (lit. bring a cow that the heart wants you) BW:45:49

Hence, it seems reasonable to say that Lopit does not have a specific universal concessive conditional construction. However, it can express the function of this kind of construction using alternative means.

9.7.6 Conditionals without overt marking

Lopit also has conditionals where there is no form of conditional conjunction, special verb form or subordinate marking. Some examples, which come from a narrative about cows, are given in (1032) and (1033). In these utterances, there are two declarative clauses in each utterance and no overt marking. The context of the utterances (i.e. the speaker is talking about the importance of cows) enables the hearer to infer a rhetorical or pragmatic the connection between the two clauses. The connection is that the first clause states some condition under which the second clause holds.

(1032) [è:j:ʃi tôxóni]p [ɔ-3-wáŋ xító xítêŋ]q
3-die person.ABS 3-want people.NOM cow.ABS
‘A person dies, people want a cow.’ Cow narrative 20140508-1:00:51

(1033) [ô-wɔn ximòrâ]p [ɔ-3-wáŋ xító xítêŋ]q
3-be peace 3-want people.NOM cow.ABS
‘There is peace, people want a cow.’ Cow narrative 20140508-1:01:00

This form could be described as an unmarked form of conditional. Some conditionals can be identified on the basis of “clear semantic equivalence with *if-then* sentences” but without “morphological, syntactic or semantic markers” (Ferguson, Reilly, Meulen, & Traugott, 1986, p. 6). It is an example of a situation that Haiman describes as where “the protasis is paratactic with the apodosis” (1986, p. 218). This is common in colloquial speech and narratives in Lopit. It also fits in with the common approach of using parataxis (or juxtaposition) in coordinating and subordinating clauses which has been described in other parts of this chapter.
9.7.7 Overview of conditionals in Lopit

Lopit has two main ways of expressing conditionals. The first is the use of the subordinating marker /l-/ to signal a subordinating clause. This is used for reality, predictive and hypothetical conditionals, but not for counterfactual conditionals. The second method is the use of specific modal forms such as the irrealis, /ŋai-/; the potential, /ma-/ and the conditional, /mai-/. This method is used for counterfactual conditionals and does not involve the use of the subordinate marker /l-/ in the protasis.

The use of subordinating morphemes and of specific modal forms is reported as the most common for the world’s languages (Comrie, 1986, p. 87). The use of specific modal forms is common where the verb encodes some form of hypotheticality or counterfactuality (Comrie, 1986, p. 87). This is also the case for Lopit.

In some of the conditionals marked with the subordinating marker in the protasis, there is a special verb form in the apodosis, such as the potential prefix /ma-/ in (1013). However, for many conditionals such as (1015) and (1016), the subordinate marker is the only overt marker related to conditionality. Thus, in these examples, it is only the marking of subordination that establishes a relation between the two clauses.

Comrie considers that in order to have conditional constructions, a language must have “a formally identifiable syntactic construction whose basic function is to encode conditional. This construction may have other functions in addition to that of expressing conditionals, but this must be the main function” (1986, p. 82). He also allows for a weaker definition in which the encoding of conditionals is “one of the basic functions of the construction in question” (1986, p. 82). Thus, in Lopit, constructions with the subordinate marker /l-/ (as in (1013) to (1016)) would be of the ‘weaker’ type, since this subordinate marker has other basic uses as is discussed above.

Lopit also has some concessive conditionals. There are constructions for scalar and alternative conditionals (using Haspelmath & König’s terms (1998, p. 563)). Universal concessive conditionals and negative conditionals can be constructed using Arabic loan words. However, it appears that it is more usual to express the kinds of meanings conveyed in these constructions using ordinary conditionals.

Conditionals in Lopit are generally similar to those in other Eastern Nilotic languages, although only Lopit appears to use specific modals forms for the counterfactual. This might be because, as mentioned in section 6.5.7, Lopit appears to have a broader range of modal forms than other EN languages. Most EN languages have conditional constructions utilising an ‘if’ clause and a number of them have ‘if ..., then..’ constructions. In addition, a number
have subordinate marking on the verb in the protasis, so that conditionals can be
construction, like Lopit, without a special ‘if’ word. The various forms are listed in Table 9-8.

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The Teso-Turkana languages have subordinating (or conditional) prefixes, k-, ki-, similar in function to the Lopit /l-/ ‘SBO’ (Barasa, 2017, p. 249; Dimmendaal, 1983b, p. 185). Maa uses a low tone construction as one type of subordinating marker (D. L. Payne, 2017). The sequential or narrative marker in Maa (the ‘N-tense’) is also used in conditionals (Tucker & Mpaayei, 1955). Otuho does not appear to have a subordinating or conditional marker and uses a range of particles or linking morphemes to introduce the protasis (Arber, 1936, p. 42; Muratori, 1938, p. 439).
References


Dimmendaal, G. J. (2018). *A typological perspective on the morphology of Nilo-Saharan languages*.


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Appendix B: Codes for Recording Sessions

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The elicitation sessions from the 2011 Linguistic Fields Methods class are denoted with the session date in the form 11_09_01 (for the session on 1/9/2011). Most were sessions with the whole class and the others, such as 11_09_01sesh4, were made with sub-groups of the class.
Appendix C: Lopit narratives and stories

This appendix contains some examples from the range of narratives and stories that have been recorded during the course of this study.

C1: Liha na hiwaru – Hunting the leopard

This story was recorded in Cranbourne, Victoria on 12th July, 2013. The storyteller is Daniel Afelino. The first line of each section is written in the provisional orthography (see 2.7); the rest is written in the same way as other examples in this thesis.

Iifa beren, lohonya hiwaru hine, olum hiyo hidong
ífá bèrén, 1-ò-xój-à xíwàrò xìnè, ò-lúm xíjó xidònì PST before SBO-3-eat-N leopard.NOM goats.ABS 3-hit people.NOM drum.ABS
‘A long time ago, when the leopard ate the goats, people hit the drum.’

Efsaak hiyo sayye
è-fáxà-k xíjó sájè?
3-send-DAT people.NOM message.ABS
‘The people sent a message.’

Engere sayye a Logonowati a Lobelo a Lodo a Haba
è-ñéèrè sájè? à lògònòwàtí à lòbèlò à lòdò à gàbà 3-send message.ABS to Logonowati to Lobelo to Lodo to Haba
‘They sent the message to Logonowati, Lobelo, Lodo and Haba.’

“Dang hiyo hajì hulong hoiluak…. hiwaru.”
dànj xíjó xàjà xùlòì xòi-lwák…. xíwàrò all people.ABS village.ABS these.M IMP-help leopard.ABS
“All people help these villages…. the leopard.”

“Ohonya hiwaru hine do donge”
ò-xój-à xíwàrò xìnè dò dò̀nì 3-eat-IPFV leopard.NOM goats.ABS in mountains.ABS
“The leopard is eating the goats in the mountains.”

Owon hang na hiwaru do donge
ò-wón xàjà nà xíwàrò dò dò̀nì 3-exist house.NOM of.F leopard.ABS in mountains
‘The leopard's home is in the mountains.’
Enaipihori hiwaru hine
è-ŋa-ip:iǒ-ré xiwàrò xíné,
3-PFV-drag-IT leopard.NOM goat.ABS
‘The leopard dragged the goat.’

Ohobok hiyo hejo na hiwaru a hunom
ô-xôbô-k xító xêjô nà xiwàrò à xúnóm
3-track-DAT people.NOM footprint of.F leopard.ABS to cave.ABS
‘The people followed the track of the leopard to the cave.’

Owwon hiwaru do hunom.
ô-wôn xiwàrò dô xúnóm
3-exist leopard.NOM in cave.ABS
‘The leopard is in the cave.’

Emanya de hunom na loudo na lerio
è-máŋà dè xúnóm nà l-ô-wûdô nà l-ê-riûk
3-live in cave.ABS REL.F SBO-3-be.deep REL.F SBO-3-be.dark
‘He lives in a deep, dark cave.’

Inya leruk hajingu to hunom.
înà l-ê-rûk xà-jiŋ-û tò xúnóm
3.not.be SBO-3-like INF-go.though-VEN from cave.ABS
‘He doesn’t want to come out of the cave.’

Eikol hiyo hiwaru.
e-ikôl xító xiwàrò
3-attack people.NOM leopard.ABS
‘The people attacked the leopard.’

Lojo tohoni lohutok ohony
lîjô tôxôñî l-ô-xûtô-k ô-xôñ
if.3 person.NOM SBO-3-be.close-DAT 3-bite.N
‘If someone gets close, he is bitten.’

Hojo monyomiji halas idek
xôjô mónômîjî xâlás îdêk
and.then leaders.NOM IMP.stop(Ar.) IMP.stop
‘Then the leaders stopped.’
They chose someone who knows.’

‘He (the expert person) told the leaders to bring firewood.’

‘They brought the firewood, started the fire on the inside of the cave.’

‘The smoke and fire are affecting the leopard inside the cave.’

‘The leopard can’t breathe.’

‘The cave became hot.’

‘The heat of the fire gets strong… it’s over.’

‘The leopard came out fast, and all people…’

...eiyen hiyo hijo olotu
e-i-jén xíjó xíjó ò-lót-ù
3-know people COMP 3-go-VEN
‘…the people know that he is coming.’

“Iwore!” “Itiringal!” “Iwore!”
ìwòrè ítí-rintà ìwòrè
IMP.move IMP.CAUS-watch IMP.move
‘Move away! Look out! Move way!’

Engaiyong hiwaru, engajingu
è-ŋà-i-jój xíwàrú è-ŋà-jiŋ-ù
3-PFV-come leopard.NOM 3-PFV-go.through-VEN
‘The leopard is coming, coming out.’

Engadumu hiyo tohon na la haremoni
è-ŋà-dúmú xíjó tóxóni na l-a(-ra) 1 xárémònì
3-PFV-take people person REL.F SBO-3(-be) spearer
‘The people choose the man who is the expert spearer.’

“Ituhuma ra ana lenyarr lirem!”
ítúxúmà rá ânà l-è-nár 1-ì-rém
IMP.prepare ready like SBO-3-be.right SBO-2-spear.N
‘Be prepared to be properly ready to spear!’

Hojo lidiyak itei, eisok iso hiyo hihony kulu
xíjó l-ì-díj-àk ítí, e-isók ìsó xíjó x-ò-xón kùlù
and.then SBO-2-miss-DAT 2PL.NOM 3-finish FUT people.ABS, SEQ-3-kill all
‘If you miss him, he will finish the people, eat them all.’

Lakin inya hiyo loforony
lákin ìŋà xíjó 1-ó-fòròñ
but(Ar.) 3.not.be people.NOM SBO-3-wound
‘But the people must not wound it.’

Lasim isièire hiyo tohon na la hangoroni, haremoni,
lásim isièèè xíjó tóxóni là l-á(-ra) xárémònì,
must (Ar.) give.INF people.NOM person.ABS REL.M SBO-3(-be) spearer.ABS
‘They must choose the person who is the spearer…’
le lemejak remo...
lè l-è-mèjàk rèmò
REL.M SBO-3-know VN.spear
‘who knows how to spear…’

…ette ra min lejingu hiwaru tiji to hunom
ètté rá min l-è-jînj-ù xìwàrò tîjí tò xùnóm
and.then ready when SBO-3-g-VEN leopard like that from cave
‘…to be ready when the leopard comes out of the cave like that.’

Ette haremoni la ra lefe tamam lojo lejingu tiji
ètté xarèmòni l-á(-ra) râ lèfè tâmâm lỳjó l-è-jînj-ù tîjí
and.then spearer.ABS SBO-3(-be) ready until perfect when SBO-3-go-VEN like.that
This spearer is ready until precisely when he (leopard) is coming out like this

Ette haremoni la herem hiten hiwaru efe do ho, leten do murut
ètté xàrèmòni là x-è-rèm xîtèn xìwàrò èfè dò xò lètèn dò mùrùt
and.then spearer.NOM that.M SEQ-3-spear exact leopard ? on head exact on neck
‘Then the spearer spears the leopard exactly on the head or exactly in the neck.’

Ette inyeja hirem, ottohok.
ètté ìnjèjà x-è-rèm, 5-t:3x:3-k.
and.then 3SG.NOM SEQ-3-spear 3-kill-DAT
‘And then he spears, he kills.’

Eyohari, hojo ifa hiyo dang hoilas
è-jòjá-ri, xàjó ifá xìjó dànj x-o-ìlàs
3-fall-IT and.then PST people all SEQ-3-copy
‘He falls down, and then all the people join in.’

Erem ifa, ottohok hiwaru.
è-àrèm ìfá 5-t:3x:3-k xìwàrò
3-spear.N PST 3-kill-DAT leopard.ABS
‘They speared, they killed the leopard.’

Halas! Engafanu efa monyomiji
xálàs è-nà-fán-ù ìfá mòpòmìjì
finish 3-PFV-come.PL-VEN PST leaders.NOM
‘Finished! The monyomiji came.’
Ette monyomiji heiyani.
ètté mómpómi yì x-e-ijáni.
and.then leaders.NOM SEQ-3-bring
‘Then the leaders bring.’

Engalorini hiwaru nia
è-ňà-lór-íni xìwàrò nià
3-PFV-carry-VEN leopard.ABS that.M
‘They carry the leopard.’

Efit hiyo hiwaru nia ho lorini
e-ifìt xíjó xìwàrò nià x-ò-lór-íni
3-tie people.NOM leopard.ABS that.M SEQ-3-carry-VEN
‘They tie the leopard and carry it.’

Hojo ifa monyomiji hofanu a fuara lecari
xìjó ìfá mómpómi yì x-ò-fàn-ù à fwàrà lècàrì
and.then PST leaders.NOM SEQ-3-go.PL-VEN to ground dancing.plance
‘And then the leaders came to the dancing place’

Olorini hiwaru na a fuara ofanu ngailurok, inyahita anguan
ò-ľór-íni xìwàrò nà à fwàrà è-fánù ña-ilúró-k, èńàxità àŋwàn
3-carry-VEN leopard that.F to ground 3-go.PL INF-dance-DAT VN.repeat four
‘They carry the leopard to the dance ground. They dance around, repeating four times.’

Hoiyari hiyo a lodungori na warak
x-ò-ijári xíjó à lòdúŋòrì nà wàràk
SEQ-3-bring people to cutting.place of.F leopards
‘And the people take it to the leopard slaughter ground.’

Efanu hiyo ngadumu hiringo nia nanyi hocari bi do fuara
è-fán-ù xíjó ñà-dùmù xìrìŋò niá nàŋí x-ɔ-cá-rì bi dò fwàrá
3-go-VEN people INF-take meat that his.F SEQ-3-dance-INS indeed at ground
‘The people come and take the skin of the leopard to dance with in dancing ground.’

Hojo nia la hiringo hodumu hioyo hoisiere do urre otohonya
xìjó niá là xìrìŋò x-ò-dùmù xíjó x-o-ísíérè dò ůrɛ̀ ð-ò-tó-xòŋ-à
and.then that.F ?? meat SEQ-3-take people SEQ-3-give to children 3-OBL-bite-N
‘And then the people take the meat and give to the kids to eat.’
Tohoni la la haremoni,
tòxònì là l-á(-ra) xárémòni,

person.ABS REL.M SBO-3(-be) spearer

The person who is the spear expert,

Ohola tohoni taraho inyeja te hiteng
ò-xólá tôxònì tàràxò ñëjà tà xítéŋ
3-buy person from 3SG.ABS with cow.ABS

'Someone can buy from him with a cow…'

Horuong na na hirawu, ocari hiyo bi
xòrwòŋ nà nà xìwàrò, ɔ̀-cà-ri xìjò bi
back.ABS that.F of.F leopard 3-dance-INS people indeed

‘…the skin of the leopard, people can dance with it.’

A icet, inya la hiramiti
á(-ra) icét, ñìjà l-á(-ra) xìràmita21
3(-be) dancing thing 3.not.be SBO-3(-be) VN.play

'It is a thing for dancing, it's not for play.’

Hocari hiyo bi
x-ɔ̀-cà-ri xìjò bi
SEQ-3-dance-INS people indeed

‘The people dance with it.’

Hojo inye, haremoni la lerem hiwaru,
xìjò ñìjë xárémõni là l-è-rém xìwàrò
and.then 3SG.ABS spearer.ABS REL.M SBO-3-spear leopard.ABS

‘And him, the person who speared the leopard…’

Olotu iso tohoni ngaholu tara hu inyeja
ò-łó-tù ìsò tôxònì ñà-xòl-ù tàràxò ñëjà
3-go-VEN FUT person.NOM INF-buy-VEN from 3SG.ABS

‘Someone will come and buy from him.’

Rori nana huna hiwaru na laiyabak nang de iteì
ròrì nánà xònà xìwàrò nà l-a-ñjàbà-k náŋ dè ìteì
stories that.PL.F of.PL.F leopard REL.F SBO-1SG-tell-DAT 1SG.NOM to 2PL.ABS

That was the story about the leopard that I told to you.”
‘That was the story of people hunting leopard in the mountains.’

‘That was it.’
C2: Xiburi na ikudo – The squirrel’s escape hole

This story was recorded at the Kakuma Refugee camp on 20th May 2017. The story teller is Masimino Lohidong Oriho. The first line of each section is written in the provisional orthography (see 2.7); the rest is written in the same way as other examples in this thesis.

enyar ikudo, ajo nang airo ikudo
è-nár ikúdò, a-jo naŋ a-iro ikúdò
3-be.good squirrel.ABS 1SG-say 1SG.NOM 1SG.speak squirrel.ABS
'So, the squirrel, I'm saying, I'm talking of the squirrel.'

manyita huna ikudo iyya naa leijo iyohoi hijo
màŋtà xúnà ikúdò ìjà nàrà l-ci-jò íjòxoi xìjò lifestyles of.F.PL squirrel.ABS like that.IMM.PST SBO-1PL-say 1PL.NOM say
'The lifestyles of the squirrel are like what we say, say.'

owolo ikudo hito
ò-wòlò ìkúdò xítò
3-see.PFV squirrel.NOM child.ABS
'The squirrel saw the child.'

owolo hito ikudo
ò-wòlò xítò ikúdò
3-see.PFV child.NOM squirrel.ABS
'The child saw the squirrel.'

owolo hito hotonyi
òwòlò xítò xàtɔ̀njì
3-see.PFV child.NOM mother.ABS
'The child saw the mother.'

ngai lowolo ikudo
ŋài l-ó-wòlò ikúdò
who SBO-3- see.N squirrel.ABS
'Who sees the squirrel?'

ajona hijo airo rori huna ikudo, ikudo,
á-jò nànà xíjò a-irò rɔrí xúnà ikúdò, ikúdò, 1SG-say 1SG.NOM COMP 1SG.speak stories of.F.PL squirrel.ABS, squirrel.ABS
'I say that I tell the stories of the squirrel, the squirrel.'
lomanyari nanyi emanya ikudo do hof
lómáńári nàŋí ë-máńá  ikùdò dò xòf
dwelling  his.F  3-live.IPFV  squirrel in  ground
‘His dwelling… the squirrel lives in the ground.’

ohut haji, ohutori, do hof, do hof, do hof, do hof
ò-xút xàji ò-xút-òrì dò xòf dò xòf dò xòf dò xòf
3-dig  home.ABS  3-dig-IT  in ground,  in the ground, …
‘His digs his house, he digs into the ground, in the ground…’

lomanyari na nyi nia, ohutori hou hafinak hiburi
lómáńári nàŋí niá, ò-xút-òrì x-ò-wù xà-ńià-k xibúrí
dwelling  his.F  there  3-dig-VEN  SEQ-3-go  INF-put-VEN  tunnel.
‘His dwelling is there.  He digs and puts in an escape hole.’

lolotu munu wele to honi lettingetari tohoni ai le lojo abahu inyeja
l-ò-lót-ú mùnù  wele  toxoni  l-e-iti-ŋeita-ri
SBO-3-go-VEN  snake.NOM  or  person  SBO-3-CAUS-run-IT
  toxoni  aile  lə+jə  a-bax-u  ŋeja
  person  any  when  3LOG-hit-VEN  3SG.
‘If a snake comes or chasing person, any person, comes to attack him.’

ejingei ahaji nia na nyi, hou boto aji ahiburi
e-ŋe-ei  a  xàji  nia  naŋí,
3-enter-IT  to  house  there  his.F
  x-o-wu  boto  aji  a  xiburi
  SEQ-3-go  INF-go.direct  where  to  tunnel
‘He enters his house there and goes straight where to the tunnel is.’

te hiburi te nia lowolo inye airuk
te  xiburi  te  nia  l-o-wolo  iŋe  a-iruk
from  tunnel  from  there  SBO-3-see  3SG.?  very quickly
‘From the tunnel, from there, he sees very quickly……’

munu  ngaiyong te halu tena wele tohoni leikub
munu  ñaijoŋ  te  xalu  tena  wele  toxoni  l-e-ikub
snake.?  coming  from  back  from  there  or  person  SBO-3-poke
‘….. snake coming from behind or a person poking.’

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te hikubi aiko, okolu to honi imoli hita
from poking 3LOG-look 3-cut-VEN human being wood
‘From poking he looks. The human cut a stick.’

leijo awak habahu ikudo
1-e-i-jo a-wak xa-bax-u ikudo
SBO-3-PFV-say 3LOG-want INF-hit-VEN squirrel
‘She said she wants to kill the squirrel.’

eikolu hita na leisaga
ei-kol-u xita na l-e-usaga
1PL-cut-VEN wood REL.F SBO-3-be.long
‘We cut a long stick.’

ho hikub, ho hikub erim leirunari ikudo
xo xikub, xo xikub e-rim l-ei-ruma-ri ikudo
with poking...with poking...3-be.good SBO-1PL-find-IT squirrel
‘With poking...with poking.... So we can find the squirrel.’

hojo ikudo lengaringu likub iye jiharu,
xɔɛŋa ikudo l-e-ŋa-rịŋ-u l-i-kub ije jixaru,
and.then squirrel SBO-3-PFV-watch-VEN SBO-2-poke 2SG.NOM like that
‘And then the squirrel watched. You poke like that’

ou hibur te na lara hiburi
o-wu x-fbór tena làrà xfbór
3-go INF-escape from that.IMM.PST tunnel exit
‘He went and escaped from that tunnel.’

haji na lohutori inyeja
xàjì nà l-o-xuto-ri ịneja
house REL.F SBO-3-dig-IT 3SG.NOM?
‘The house which he was digging…..’
He digs, he digs, and then he fills the soil at the back of and inside the house.

And then that doorway... He blocks it.

You shouldn't be able to see it. One day the door is a hole.

When door which is a hole. Like that when he exits... he exits.'
'And then he could exit from there and he escaped.'

'And you miss seeing it and he looked down here inside the house.'

'And then he exits from there. He escapes.'

'You still can’t find anyone.'