A COMPARATIVE STUDY OF THE VERB STRUCTURE IN NORTHERN, CENTRAL AND SOUTHERN KHOESAN: THE CASE OF JU/'HOANSI, NARO AND !XÓÕ

by

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Dedication

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ABSTRACT

This dissertation, deals with the verb structure found in Ju/hoansi, Naro and !Xóõ, which form part of the Northern, Central and Southern Khoesan respectively. Although previous studies have been conducted on these languages, no study has been done to date involving a detailed comparison of the structures in these languages. Thus, not much has been done in the area of syntax; particularly syntactical comparison. Previous studies ignored comparisons of grammatical categories and structures such as noun class markers, plural formation markers, tense and aspect markers and verbal extensions.

This dissertation consists of six chapters. Chapter 1 covers the language situation in Botswana. Chapter 2 is devoted to the literature review. Chapter 3 deals with the linguistic features found in the three languages. Chapter 4 covers the methodology and the theoretical framework adopted in the dissertation. The theoretical framework is eclectic in nature, in other words, the study is largely descriptive. However, on occasion, some aspects of lexical functional grammar (LFG) are used. This theoretical framework is appealing as it best handles important aspects of the languages under consideration, particularly the verb extensions. Chapter 5 describes the noun class system, highlighting the markers found in different noun classes. It also covers tense and aspect markers as well as the verbal extensions found in the three languages. Specifically, it is argued in this chapter that plural formation occurs in three ways; regular plurals, irregular plurals and neutral plurals.

The study reveals a close relationship between tense and aspect and the motion of the events, points of reference and moment of speech encoded in the verbs involved. Adverbials can co-occur with the relevant tenses. Lastly, it is shown that verbal extensions do not just combine freely; they are subject to different kinds of sequential constraints.

Chapter 6 summarizes the main findings, highlighting the similarities and differences in the three languages. Naro is SOV while Ju/'hoansi and !Xóõ are SVO. Chapter 6 also indicates areas in these Khoesan Languages requiring further research.

KEY TERMS

Khoesan, Ju/'hoansi, Naro, !Xóõ, noun classes, pronouns, plural formation, tense and aspect, person gender and number marker, Lexical Functional Grammar, Thematic roles, verbal extensions.

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SYMBOLS AND ABBREVIATIONS

CV	Consonant Vowel
V	Vowel
N	Nasal
H	High tone
L	Low tone
HL	High Low
ML	Mid Low
LH	Low High
LMT	Lexical Mapping Theory
LM	Low Mid
MF	Mid Falling
SOV	Subject Object Verb
SVO	Subject Verb Object
Asp	Aspect
SUBJ	Subject
OBJ	Object
OBJɘ	Thematic Object
NP	Noun Phrase
VP	Verb Phrase
PP	Prepositional Phrase
C	Constituent
F	Functional
A	Argument
Ag	Agent
Th	Theme
Pt	Patient
Ben	Beneficiary
L1	Language 1
L2	Language 2
L3	Language 3
PST	Past
T/A	Tense and Aspect
Pgn	Person Gender Number
Part	Particle
Exp	Experiencer
App	Applicative
FV	Final Vowel
SM	Subject Marker
Rec	Reciprocal
Pn	Pronoun
ARG.1	1st Argument
ARG.2	2nd Argument

FUNC.1	1st Functional Structure
FUNC.2	2nd Functional Structure
GRAMM.REL.1	1st Grammatical Relation
GRAMM.REL.2	2nd Grammatical Relation
Loc	Locative
1sg	1st person singular
3sg	3rd person singular
Fut	Future
Aux	Auxiliary
Hab	Habitual
Caus	Causative
Conj	Conjunction
Adj	Adjective
Refl	Reflexive
Dem	Demonstrative
Pple	People
Pass	Passive
Neg	Negative
RNPE	Revised National Policy on Education
WIMSA	Working Group of Indigenous Minorities in Southern Africa
N.D.	No Date
Pl	Plural
Prep	Preposition
Perf	Perfective
Masc.	Masculine
>	Takes Precedence Over
< >	Comprises of
OBJ.1	Primary Object
OBJ.2	Secondary Object
OBL	Oblique Object
θ	Thematic Role
[+0]	Object Function
[-0]	Non-Object Function
[+r]	Restricted Function
[-r]	Unrestricted Function

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CHAPTER 1: Introduction and Background

1.1. Introduction

This chapter consists of six sections. Section 1.1.1. deals with the country and section 1.1.1.1. discusses the language situation whereas section 1.2 looks at the research problem. Section 1.3 is devoted to the relevance of the study while section 1.4 presents the statement of the problem. Finally, section 1.5 deals with the rationale of the study. In what follows is a discussion on the country and the language situation, including the three languages which are the subject of this study.

1.1.1. The country

Botswana, a country in Southern Africa, is one of the largest African countries. Its surface area is 580 730 square kilometers, approximately the size of France or Kenya, but very sparsely populated. Thus, the total population is estimated at 1.85 million. The name Botswana consists of a prefix *bo-* and a stem *–tswana*. A person from Botswana is called a Motswana (prefix *mo-*); plural form Batswana (prefix *ba-*). The plural form Batswana can mean either all the people of Botswana or it can mean people of Tswana descent (Anderson and Janson 1997:9). The language of the Batswana is called Setswana and like in most Bantu languages, the class 7 prefix *se-* is used to denote the language name Setswana.

Botswana was among the twenty-five poorest and least developed countries in the world when she attained her political independence in 1966 from Britain. Cattle farming was the major source of wealth and income. Because of the quality of the beef Botswana supplies its beef to European Countries. She started supplying the beef to European countries after independence until today. Education had been neglected, most people were illiterate and very few Batswana were available to fill professional and technical positions. The poverty situation was accentuated by several years of drought, which coincided, with the achievement of independence. As a result of the severe drought, cattle herding declined and the domestic resources available for development were inadequate. One fifth of the population received famine relief on a regular basis from government and this situation still prevails even today, as many people depend on drought relief programmes for survival.

However, many changes have taken place since independence. Some have been the result of human effort and the generous support extended to the country by the donor community (like Southern African Development Community, United Nations, United States of America etc). The country boasts one of the most successful economies in Africa, based largely on natural resources and tourism. Thirty years after independence minerals such as diamonds, copper

and nickel, coal and soda ash were discovered. However, the main economic force in the country is the diamond mining industry. As a result of the economic growth, Botswana has graduated out of the group of the poorest and least developed countries and has now moved into the group of middle income countries in the World Bank classification[1]. High public spending led to an expansion in public sector employment, and boosted employment in the private sector, especially in construction, retailing and distribution, and service provision to the diamond industry. Also, there has been a rapid progress in the provision of educational services since independence, with Setswana and English being the medium of instruction in schools.

Botswana is one of Africa's most stable countries which has never had a coup and has had regular multi-party elections since independence in 1966 until today (The Botswana Gazette 2009: 4 and 11). She demonstrates how a country with natural resources can promote sustainable development with good governance in a continent where too often mineral wealth has become a curse. A foundation dedicated to celebrating and encouraging good government in Africa awarded its annual prize to Botswana's former president, Festus Mogae on 20th October 2008. He was honoured for consolidating his nation's democracy, ensuring its diamond wealth enriched its people and providing bold leadership amid the AIDS pandemic (The New York Times 2008:1). President Mogae's outstanding leadership has ensured Botswana's continued stability and prosperity in the face of an HIV/AIDS pandemic which threatened the future of the Batswana. Botswana has won more praise and it was declared the most peaceful in the continent (Mmegi 2009:6). According to this paper, worldwide it was ranked above the United Kingdom, a country with a much more established economy and democratic system. This is an achievement that Batswana and residents of this country should be proud of. This peace is a product of our collective effort at respecting our constitution and laws whose basic thrust is democracy and respect for human rights.

Botswana has been regarded as a beacon of hope in Africa in general and in Southern Africa in particular in terms of democracy, stability and economic prosperity as already mentioned. In order to achieve the democracy, stability and economic prosperity mentioned above, President Ian Khama has introduced the four D's. The first D stands for Democracy while the second D stands for Development, the third D stands for Discipline and the last D refers to Dignity. The president introduced the fifth D which stands for Delivery on 13th October this year immediately after he won the elections. He emphasizes more on discipline and democracy and he has previously stated that, "No democracy can exist without discipline".

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[1] (Internet: Africa.Com)- This was visited in February 2008

The emphasis is on the five D's because they uphold the good image, esteem and the prestige the country has been enjoying in Africa and instill a culture of work and discipline amongst the Batswana.

1.1.1. 1. Language Situation

Botswana is a multiethnic, multilingual and multicultural nation with its people speaking about twenty-six languages from both Bantu and Khoesan language families. Very few of these minority languages have orthographies and literacy materials. As a legacy of colonialism, the English language has the highest domains of use in the country as the official language and is used in government, national and international communication. Setswana was accorded the next highest status in terms of domains of use as a national language and is the communication medium in kgotla[2] meetings, local administration, lower primary school, customary law, and in the provision of social services (Batibo 2005). Also as a lingua franca, Setswana is a national symbol and has the important role of unifying the nation (National Commission on Education 1993). The other marginalized languages including the ones which are the subject of this study do not feature anywhere in the public domains.

Recently, the Batswana people (Setswana speaking inhabitants of Botswana as well as citizens) came to realize that, apart from Setswana, their country has many other languages, such as Sekgalagadi, Setswapong, Sebirwa, Sekgatla, Sengwaketse, Sesubiya, Seyeyi, Thimbukushu, Otjiherero, Ikalanga and the Khoesan languages which need the same recognition as the two official languages mentioned above (Batibo 2005:87). For this to take place such languages must be studied and that is why this study will be of major contribution. Furthermore, the University of Botswana in collaboration with the University of Tromso provides money for research in Khoesan languages.

The Khoesan people were once spread over much of Africa and were probably the only people in Botswana up to 3,000 years ago (Anderson and Janson 1997:111).. These people were completely adapted to the desert environment of Botswana and they probably made the rock paintings found all over Africa, including those at the Tsodilo Hills. These paintings show that the people there had developed a rich culture and many experts believe that the paintings have spiritual or mythological meanings. In the last few centuries Before Christ, agriculture and iron working finally found their way into northern Botswana, and many Khoesan people became farmers (Anderson and Janson 1997:111). The next people to arrive in Botswana were the Bantu, who brought western and eastern Bantu languages, Iron Age

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Kgotla-This is where people in the villages gather and discuss developments in their areas and they are normally addressed by the chief or any public figure.

Technology, and grain farming. The Khoesan people, with their simpler Stone Age Technology, could not compete and either became part of the Bantu groups, or were pushed into places that were not good for farming. This meant that Stone Age cultures could still be found in the Kalahari long after they had died out elsewhere. A lot has changed and today life is different for most Khoesan people. Some have moved to cities, others work at the cattle posts and some are farmers.

The Khoesan languages constitute a group of languages, which originate from Khoe and San. The term Khoesan is in fact constructed as a compound consisting of two parts; Khoe is a Nama word meaning "person" and San is also a Nama word which is a common gender plural of a root *sá-* meaning "bushmen, forager" (Anderson and Janson 1997:111). Over the past four millennia, the Khoe and the San have inter-married and intermixed to the extent that they have influenced each other not only linguistically but also physically, culturally and socio-economically. From a linguistic point of view there is extensive intermixture of characteristics, there are at least three distinct typological categories namely; Northern Khoesan, Central Khoesan and Southern Khoesan. Anderson and Janson are of the idea that both the Ju/'hoansi and !Xóõ families have preserved many of the San characteristics (live in small groups as hunters and gatherers) while the Naro group has preserved many Khoe characteristics (live permanently in small villages and have herds of sheep and cattle). In fact, the Western group known as Khoekhoe has preserved most of the original khoe features. The Northern Khoesan include languages like Ju/'hoansi. On the other hand the Central Khoesan constitutes languages like Nama, Kua, Naro, //Gwi, //Gana etc. Lastly the Southern Khoesan comprise of !Xóõ which is spoken over large parts of Southern and South-western Botswana. It is not closely related to any other Khoesan language, which is still spoken. It is related to the !Kwi family of Khoesan languages which were spoken in South Africa- none of these languages are still spoken.

Today, the Khoesan languages are mostly spoken in Botswana, Namibia and Angola, but there are also small groups of speakers living in South Africa (Anderson and Janson 1997:111). Khoesan languages are click languages and sometimes this is used as a defining characteristic for these languages. According to Bill (1974:65), Bantu languages such as Xhosa, Zulu, Shiyeyi, etc which have come into contact with the Khoesan languages seem to have borrowed clicks from these languages. There are five basic clicks found in most Khoesan languages; dental, bilabial, alveolar, palatal and lateral click and these are dealt with in more detail in chapter 3.

As indicated in table 1 on the following page, in terms of the numbers of their speakers, there are 150 000 Ikalanga speakers, 1 000 000 Tswana, 31 000 Herero, 10-15 000 Kgalagadi, 20 000 Yeyi, and 6-10 000 Mbukushu speakers in Botswana (Hasselbring 2000: 11). There is also a growing awareness amongst the citizens of Botswana about the existence of other cultures being practiced in the country. This has sparked off a nationwide interest in other languages and research has been extended to cater for other languages, particularly the so-called minority languages such as Ju/'hoansi, Naro and !Xóó that have been in danger of extinction; (Lukusa 2002; Hasselbring 2000; Anderson & Janson 1997; Nyathi-Ramahobo 1994, 2000; Motshabi & Saugestad 2004; Youngman1997; Batibo & Tsonope 2000 and Chebanne 2000). The table presented below shows the percentages of speakers of the different languages of Botswana taken from Hasselbring (2000:11).

Language	Number of speakers	Percentage
Afrikaans	442	0.0%
Danisi	2150	0.2%
Deti	1100	0.1%
∕∕Gana	2454	0.2%
∕Gibe	520	0.0%
!Goro	3200	0.2%
∕Gwi	546	0.2%
Herero	31000	2.4%
Ju'hoansi	2596	0.1%
Kalanga	150 000	11.7%
Kgalagari	15 000	1.2%
Kua	20 000	1.6%
Kuhane	7000	0.5%
≠kx'au'ein	2832	0.2%
Lozi	40	0.0%
Mbukushu	10 000	0.8%
Nambya	1900	0.1%
Naro	8000	0.6%
Tswana	1 000 000	77.9%
∕Xaise	1400	0.1%
!Xóõ	4000	0.3%
Yeyi	20 000	1.6%

Table 1: Percentages of African Languages spoken in Botswana

Since independence until now, the medium of instruction in schools have been English and Setswana. Other minority languages including Ju/'hoansi, Naro and !Xóõ do not feature anywhere in the Language policy. The Language policy in this country has led to the misconception (by both locals and foreigners) that there is only one language (Setswana) spoken as a mother tongue in Botswana besides English. The language policy in Botswana has kept the other languages spoken in the country on the periphery of the socio-economic sphere.

There have been a number of voices calling for official recognition and use of minority languages in education in the country (*cf.* Batibo & Smieja 2000a; Hays 2004, 2006; Motshabi & Saugestad 2004; National Commission on Education 1993; Nyathi-Ramahobo 1994, 2000; Revised National Policy on Education; United Nations 2006; Vision 2016; WIMSA 2000, 2004 and Youngman 1997).

Although the National Policy on Education which was published in 1993 recommends all the languages of Botswana to be used as media of instruction in schools, sixteen years after its publication, Setswana is still the only indigenous language that enjoys official recognition. Studies conducted among Khoesan speakers and other linguistic minorities indicate that the current language policy negatively affects their academic achievement. During the fieldwork, it was evident that Batswana are ready to accept the use of minority languages at least at the foundation phase of primary school.

Although the recommendations by the Revised National Policy on Education (RNPE) of 2004 did not include other indigenous languages to be considered in the curriculum, the National Commission on Education (1993) referred to above acknowledge the disadvantaged position of learners from the marginalized groups, especially the speakers of Khoesan languages. For instance, during the fieldwork, parents in villages such as Kacgae, Bere, New Xade, and Qangwa have vehemently expressed their dissatisfaction for lack of use of their mother tongues as medium of instruction in government schools where Khoesan speaking people are in the majority. They would like to see their languages used as medium of instruction alongside the national language Setswana.

The NPE (1994:13) recommended that the National Setswana Language Council be renamed the Botswana Languages Council and be reformed into an inclusive institution with a mandate to drive the development of not only Setswana but of all languages in Botswana. Three years after the approval of its recommendations by the National Assembly, Botswana's

Long Term National Vision, called Vision 2016, was launched. One of its pillars is to make Botswana an educated and informed nation. Among its aspirations is that, 'by the year 2016, Botswana will have a system of quality education that is able to adapt to the changing needs of the country as the world around us changes and Botswana's wealth of different languages and cultural traditions will be recognized, supported and strengthened within the education system' (Vision 2016 1997:5). Similarly, Kamwendo (2006:32) argues that Botswana needs a revised language policy that would be inclusive and supportive of the country's minority languages. It is clear that the current language policy in education in Botswana disadvantages those pupils who speak minority languages. Botswana's language policy for education, given its inability to include minority languages, is actually in contradiction with the aspirations of the national vision 2016. The Presidential Task Group, basing its arguments on the vision 2016 mentioned above, states that:

> *No Motswana will be disadvantaged in the education system as a result of a*
> *mother tongue that differs from the country's two official languages.*

The above aspiration calls for the inclusion of minority languages as media of instruction and/or subjects of study. Although it has been nine years after the publication of the vision, its recommendations still remain one of the major sources of hope towards multilingual education in Botswana.

In Kome (2006:3) as pointed out in The Botswana Daily News (one of the most well known newspapers), the Minister of Education asserts that 'Government is exploring ways of incorporating other languages into the education curriculum'. However, until now, the implementation of the inclusion of minority languages into the schools leaves a lot to be desired. Batswana still hope to achieve this one day. The absence of a comprehensive national language policy compounds the problem of policy planning for education and other sectors in Botswana (Motshabi 2006:24).

It should be observed that contrary to what obtains in Botswana, in Namibia where the same Khoesan languages are spoken, efforts have been made to make the Khoesan languages part and parcel of the linguistic makeup of that country. Thus, making Khoesan languages visible. The Khoesan languages in Namibia were considerably developed in terms of orthography and educational materials as part of the separate development policy in that country. According to Biesele (1994), the practical literacy work carried out in Northern Namibia has been very successful and today quite a few of the Ju/'hoansi are literate in their own language. There is also school material in the language used in primary school. Much of this work has been done

by the Nyae Nyae Development Foundation (private venture) in the above-named country (Anderson and Janson 1997: 126). According to these scholars, since January 1994 and onwards, the young Ju/'hoansi spend their first three years of schooling being taught in their own language. Unfortunately, not much has been done in Ju/hoansi in Botswana in terms of literacy materials.

In recent years, the plight of the Khoesan languages and culture has caught up with the socio-political debates in the world and as such their culture and languages have taken centre stage in and outside the country. Chief amongst them is that their cultures and languages are under threat of serious extinction. This is mainly true to !Xóõ language speakers which is the only Southern Khoesan language remaining in Botswana. This language is closely related to ≠Khomanani in South Africa. Their plight has become a cause of major concern. As a result, the relationship between the government of Botswana and the Khoesan people has attracted considerable attention nationally and internationally as already indicated. Furthermore, underlying the controversies over the development of Khoesan have been the issues of land rights. Some activists have taken issue with the government over its relocation of the Khoesan, even urging the United Nations to intervene (The Monitor 2004:2).

In response to the concerns about the state of research on Khoesan languages, the University of Botswana, as already mentioned, has joined hands with other stakeholders, trying to study the Khoesan languages. To mention a few, there is a collaborative research and capacity building programme for Khoesan languages between the University of Botswana and the University of Tromsø, Norway. The project provides abstracts in Khoesan linguistics and literature and these are part of a broader range of initiatives at the University of Botswana, reflecting a commitment towards the advancement of scholarship in Khoesan research. It is also within this ambit that the present study should be viewed – a contribution towards the study of the Khoesan languages that are spoken in Botswana.

1.2. The Research Problem

As mentioned earlier, the languages which are the focus of this study are, Naro, !Xóõ, and Ju/'hoansi. The map presented below taken from Willet (2002:viii) shows the places where these languages are spoken. The Naro speakers are found in various villages in the Ghanzi and Northwest districts in Botswana and in some central eastern parts of Namibia. These villages include; Bere, Charles Hill, D'kar, East Hanahai, Groote Laagte, Karakobis, Kuke, Makunda, New Kanagas, Tshobokwane, and West Hanahai. On the other hand, !Xóõ is spoken in the Kalahari and Ghanzi areas in Botswana in villages like; Bere, Kacgae,

Takatshwane, Charles Hill, Tshobokwane, and some central- south eastern parts of Namibia. Lastly there is Ju/'hoansi which is spoken in the Ghanzi and Northwest districts in Botswana. Speakers of Ju/'hoansi live in; Sehithwa, Nokaneng, Tsau, Qangwa, Qaaqa, Dobe, Charles Hill, D'kar, Groote Laagte, Kanagas, Karakobis, Kuke, New Kanagas, Tshobokwane, and West Hanahai villages. They are also found in some north eastern parts of Namibia. There are about 6540-7994 Naro speakers in the Ghanzi area and about 230-280 !Xóõ speakers in the same area (Hasselbring 2000:75). Hasselbring estimates to about 2124-2596 Ju/'hoansi speakers in Botswana. Below is a map taken from Willet (2002:viii) showing the villages where these languages are spoken.

Villages where JU/HOAN, NARO and !XÓÕ are spoken

As mentioned above, the Khoesan languages form part of the minority languages of Botswana and, as such, they are not accorded any meaningful role in the country. The traditional life based on the subsistence economy, hunting and gathering, has been made virtually impossible to sustain due to the changes in the Botswana economic development. Thus, Khoesan people have been marginalized and so have been their languages. The prestige and status of these languages are low, for several reasons chief amongst them is that, low status people tend to have low status languages. Furthermore, these languages are not used outside their speech community, with few exceptions. Worse still, they are not yet reduced to writing and this may explain why most of the Khoesan languages are affected by language shift and language death (cf. Batibo 2005:52).

Ju/'hoansi, Naro and !Xóõ are the focus of the current study as already mentioned. The lack of comparative and descriptive studies on these languages in as far as verbal constructions are concerned have inspired and motivated their selection. Thus, as already mentioned above, this study is a contribution towards the study of Khoesan languages in general and of Ju/'hoansi, Naro and !Xóõ in particular. Furthermore, these languages have been selected because they have more speakers compared to other Khoesan languages and, as such, are the most well known.

1.3. Relevance of the Study

Except for South Africa, where an extensive research has been undertaken by Snyman (1970) and Traill (1985), there is a paucity of studies on Khoesan languages in the countries where they are spoken notably Angola and Namibia. As mentioned in section 1.2, this study may therefore be regarded as a contribution bridging the existing gap in the study of Khoesan languages in particular and in the study of the culture and heritage of Botswana in general, making the Batswana realize that their country is not monolingual. Furthermore, it will also help the Batswana appreciate the linguistic peculiarities obtaining in the Khoesan languages. The study shall also add knowledge to people who are not aware that there are diversities among Khoesan languages and would shed light to some Batswana who see Khoesan languages as one entity *Sesarwa*[3]; they shall appreciate the fact that Khoesan languages are different. This study shall contribute to the field of linguistics in Botswana as well as in the neighbouring countries where these languages are studied. It will raise awareness to the speakers of other languages about the typological diversities in Khoesan as one of the main

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Sesarwa- In Botswana people talk about the Basarwa (the people) and Sesarwa (the language) in ordinary language without further classification. The terms Basarwa and Sesarwa could be said to correspond to the term 'Bushmann' in English. Both Basarwa and Bushman have been avoided for sometime because they have been regarded as derogatory. The terms Basarwa and Sesarwa conceal the fact that this is a question of several groups of people and several languages.

language families that contribute to classification of world languages. Furthermore, it shall add knowledge of Khoesan diversity for pedagogical contrastiveness. This would not only add to the existing knowledge but would also benefit scholars since they can always use the findings in class or refer to them whenever carrying a similar research. Furthermore this shall also benefit the Khoesan speakers since they will know more about their languages hence appreciate them more and Khoesan languages can only be effectively used as medium of instruction if they are properly studied.

1.4.   Statement of the Problem

As mentioned on page 6, a global wide concern on the plight of the Khoesan languages has increased interest among researchers. Comparative studies that would bring to the fore some of the differences and similarities amongst these languages are still lacking. Most of the studies that have been carried out on Khoesan languages focus on phonetics and phonology because of the presence of the clicks. For example, phonology (Chebanne 2000; Visser 1998), phonetics (Honken 1977; Snyman 1975; Traill 1985), and the lexicon (Dickens 1994; Visser 2001; Widlok: N.D.) but none has been done on comparative syntax. Most of the studies have been confined to the description of languages but none focused on comparative studies between the various languages belonging to the Khoesan family especially on verbal constructions. Until now it is not clear what the differences and similarities between these three language groups are and it is believed that this research will be able to highlight some of those differences and similarities particularly regarding the verbal constructions. For the sake of clarity, some examples from languages such as Setswana and Ikalanga will be used to refer to grammatical categories such as tense, aspect etc in sections 4.1.2 and 5.1.2.

1.5.   Rationale of the Study

As mentioned earlier, minority languages have not been the focus of the Botswana Language Policy. Thus, there is not any official policy regarding these languages in Botswana. This silence has also affected the Khoesan languages including Ju/'hoansi, Naro and !Xóõ. However, in the new Cultural policy of the country, the other indigenous languages are regarded as the bases for the enrichment of Botswana culture and linguistic heritage. The Language policy does not seem to favour cultural diversity, as it makes an effort to assimilate other cultures through the use of Setswana. For instance, pedagogically, all Batswana, including those from the minority groups, are treated as knowledgeable in Setswana at the time of starting school. This is not so, as shown in many studies on language proficiency before starting school (e.g. Mokibelo and Moumakwa 2006). The legacy of the policy also results in the low levels of performance by Khoesan pupils in primary schools mainly because their mother tongue languages are not related to Bantu languages such as Setswana.

As already referred to, in most cases, both the Khoesan groups and other minority groups living in rural areas including Ju/'hoansi, Naro and !Xóõ do not speak Setswana as a first language. Most achievement related problems are caused by the use of Setswana as the language of instruction in the foundation phase. When a child is taught through a mother tongue or first language, the learning process becomes much easier (Sigca 2004:241). Sicga further states that the use of mother tongue education in primary schools has the advantage of allowing teachers and pupils to teach and learn in a language in which they are competent.

Most of the Khoesan speakers shift to Setswana since it is a language associated with social-promotion, socio-economic advancement or better living (Batibo and Tsonope: xiii in Anderson and Janson 1997). This study therefore will make a major contribution since these languages have so far not been well contemplated and it will help bring the Khoesan speakers to the core of Botswana Linguistic make-up. Furthermore, it will also empower the speakers because it will make them feel that their languages are as good as others since they can be written down and as such will help prevent language shift and death (cf. Batibo 2005).

CHAPTER 2: Literature Review

2.1.   Introduction

In the previous chapter it was observed that there is generally a paucity of studies on Ju/'hoansi, Naro and !Xóõ. Despite this, it is necessary to review the available literature on these languages. Thus, this chapter deals with the literature on Ju/'hoansi, Naro and !Xóõ, identifying the areas that have been the subjects of earlier studies as well as the gaps in those studies. As is the case with the current studies, earlier studies on khoesan languages, including the ones under consideration in this study, are basically descriptive. The present study compares the verb structure of Ju/'hoansi, Naro and !Xóõ. This chapter is divided into 14 sections. Section 2.1. contains the introduction, and section 2.1.1. discusses the phonetics studies, section 2.1.1.2 deals with morphology and section 2.1.1.3 is devoted to the lexicon. Earlier work on Khoesan languages has been compressed into two volumes entitled: Annotated Bibliography on Khoesan compiled by Shelag Willet. The majority of the studies in these volumes focus on phonology, phonetics, historical and sociolinguistics and the lexicon. The summaries in the volumes tend to concentrate on the description of Khoesan languages without any focus on comparative studies on these languages. Furthermore, the two volumes generally provide only summaries of the studies, and, as such, they are often not very helpful because of the lack of detail. Not much research has been done on the syntax in the three languages, particularly from a comparative perspective. It has been observed in the literature review that earlier studies on Khoesan languages are varied and lack focus, i.e. when we expect them to be dealing with phonetics, we find elements related to other branches of linguistics such as morphology, lexicon and phonology. The three languages, Ju/'hoansi, Naro and !Xóõ, are considered separately starting with Ju/'hoansi.

2.1.1.   Ju/'hoansi

2.1.1.1.   Phonetics

Doke (1925) outlines the phonetics of Ju/'hoansi based on research he carried out in the Grootfontein district in Namibia. He describes the syllable structure of this language and states that most of the syllables end with vowels and nasal consonants and that the majority of words begin with clicks. In his study, also in Namibia, Snyman (1970), describes the consonants, vowels, adjectives and clicks in Ju/'hoansi. The fact that there are only two authors who did research on phonetics of Ju/'hoansi really shows that there is a lack of extensive studies on this language as stated earlier.

2.1.1.2.   Morphology

Most studies on morphology focus on noun classes and plural formation. The researchers in this area include Dickens (1992), Anderson and Janson (1997) and Snyman (1970 and 1979). Dickens (1992) outlined the grammatical structure of Ju/'hoansi covering the pronouns and serial verbs.

On the other hand, Anderson and Janson (1997:144) maintain that Ju/'hoansi has no suffix in the singular. A suffix is not obligatory, even in the plural. Anderson and Janson believe that there is no gender concord and that there are no affixes on adjectives or demonstratives chosen according to gender category in the noun. Pronouns do exist in Ju/'hoansi as in all other languages, and the question is whether the pronouns are chosen according to a kind of gender system (Anderson and Janson 1997:144).

Also in respect to Ju/'hoansi, Snyman (1970) deals with compounds. He maintains that, in many languages, when two nouns are juxtaposed, they form a compound, and this is also the case in Ju/'hoansi. Snyman argues that the compounds formed in this manner have the same grammatical use as ordinary nouns. He further points out that another feature of these compounds is that they may or may not have the ending –a. Snyman (1970) also discusses transitive and intransitive verbs in Ju/'hoansi. He states that the transitive verbal stems fall into two groups, namely regular and irregular transitive verbal stems. The irregular transitive stems assume a singular and plural form in agreement with the singular or plural form of the object of the sentence Snyman (1970). Snyman argues that the regular transitive verbal stems remain unaffected by the singular or plural of their objects.

However, Snyman (1979) discusses the grammar of Ju/'hoansi, in particular the nouns, pronouns, demonstratives and adjectives. Snyman argues that there is evidence to believe that there are five nominal classes, and the division of these categories is apparently based on semantic and structural features in the form of pronouns. He argues that the plurals of nouns are denoted by -sĩ although some words have separate forms for singular and plural. One of the shortcomings in the above-mentioned authors is that they did not consider things in a comparative light. Most of the information is just mentioned in passing without going into details of what actually happens in Ju/'hoansi in terms of the morphological categories.

2.1.1.3.   Lexicon

Dickens (1994) produced an English-Ju/'hoansi, Ju/'hoansi-English dictionary. In the introduction of the dictionary, he outlines the sources and the methodology of the word collection and the standardization of the dialects. As regards the orthography used in the dictionary, Dickens points out that it was developed under the auspices of the Nyae Nyae Development Foundation in Namibia. The dictionary is detailed and serves as a good starting point for anyone doing research on Ju/'hoansi. In fact, we have not found any work dealing with Ju/'hoansi phonology and that is why we started with the lexicon.

In what follows the discussion focuses on Naro. Section 2.2.1 deals with morphology, section 2.2.1.1 covers the lexicon, and section 2.2.1.2 deals with phonology..

2.2.   Naro

As we have seen above, not many studies have been carried out in the three languages under study. In fact, we have not found any work dealing with Naro phonetics and that is why we start with morphology.

2.2.1. Morphology

Barnard (1985) wrote a book on Naro grammar that covers the most significant aspects of the language, such as consonants, vowels and basic sentence structure particularly for the benefit of those who know little about Khoesan languages. His book is devoted to the translation of concepts from English into Naro. The Naro grammar under review has proven to be a useful guide in this study as the present researcher was able to obtain the person gender number markers, such as -*ba*-signaling masculine and -*sa* signinalling feminine as well as the tense aspect markers from the book. Although the work under review focus on morphology, it also focuses on phonology and syntax.

2.2.1.1.   Lexicon

Visser has produced two Naro-English dictionaries. The first one is Visser (1997). This dictionary includes information on tone markers, derivation of words and idiomatic use of words, clicks and person, gender and number markers.

The second dictionary appeared as Visser (2001). It is more detailed than the first one as it covers a wider range of topics. One other aspect that sets this dictionary from the first one is the fact that it consists of two sections: the Naro-English section and the

English-Naro section with the former section containing more information than the latter section. In addition to the meaning, Visser includes the IPA notation, tone, grammatical class, dialect information, derivation and the idiomatic use of words. He provides a section on clicks in Naro as well as the person, gender and number markers. One of the shortcomings in Visser's work is that he does not give general grammatical notes like syntactic constructions, concordial structure, noun classes etc. As was the case with morphology, although the work under review focuses on the lexicon, it also focuses on phonetics such as the work on clicks and also on morphology.

2.2.1.2. Phonology

Visser (1998) mentioned earlier in chapter one, section 1.4 deals with the phonological system of Naro. He maintains that Naro has the following clicks: dental, alveolar, palatal and lateral. Furthermore, he points out that Naro has five oral vowels, three nasalized vowels and two pharyngealized vowels. He is also of the opinion that tone is distinctive in Naro and is carried by vowels and /m/. Although this may seem unusual that tone is assigned to consonants, this is a fact in Naro as indicated in chapter 3, section 3.2.5.1. Visser observes that in this language three tones can be distinguished: high, mid and low. It is relevant here to observe that, contrary to Visser (1997), Visser (1998) is easy to follow because he gives a detailed description of the phonological system of Naro and provides different examples to illustrate his arguments. Visser 1998 has focus. As a result, Visser 1998 is regarded as a starting point for any study on the phonology of Naro. However, one of the problems found in Visser 1998 is that his work seems to lack linguistic rigour, as he tends to merely describe or mention what occurs in the language without providing any analysis.

After considering the works on Naro, works on !Xóõ are reviewed. Thus, section covers phonetics, section 2.3.1.1 looks at morphology and section 2.3.1.2 discusses the lexicon.

2.3. !Xóõ

2.3.1. Phonetics

Traill is the main authority on !Xóõ, which as already stated is the only Southern Khoesan language still spoken in Botswana and most researchers also working on the language follow his analysis. Traill (1991) argues that nasal ingressive airflow occurs during the production of a certain class of aspirated consonants – so-called 'delayed aspirated' click consonants (Traill 1991:15) – and that this is due to pulmonic suction. He provides a table with examples from

Nama, Ju/'hoansi and !Xóõ to show the contrast. He is the only researcher so far in this discipline who has endeavoured to compare the clicks found in !Xóõ with those found in other languages from different families such as the Nothern and Central language families.

Ladefoged and Traill (1993) discuss !Xóõ, and their focus is on the production of clicks, how they are articulated and the acoustic features of some clicks. They maintain that 105 click accompaniments have been identified in Khoesan languages, 83 of which occur in !Xóõ. These authors also argue that some of these sounds should be considered sequences of a single click with additional consonants, in which case there would be 70 phonetically distinct click segments, 55 of which occur in !Xóõ.

There is some similarity between the work done by Traill (1991) and that done by Ladefoged and Traill (1993) on !Xóõ. Traill's focus is more on the aspirated clicks while Ladefoged and Traill (1993), in their paper focus on the production of clicks. Both authors under this discipline have focus.

2.3.1.1.   Morphology

Traill (1974b) believes that two classes of nouns exist in the singular – one that has the forms *ha* and *ā* for its corresponding pronouns, and one that has the forms *h*i and *ē,* while the plural of both classes has only one form for each pronoun, this being at the same time one that actually agrees with the second form of the singular. According to him, this is the only evidence of the division of the noun into classes that is effected by concord. Traill (1974b) argues that nouns in !Xóõ sentences govern a series of concordial affixes on dependent forms such as adjectives, possessive particles, conjunctions, relative pronouns, locative particles, verb stems, demonstrative pronouns and subject prefixes as seen in chapter 5, sections 5.3.1 and 5.3.1.1 . He points out that each noun is assigned to one of the five classes, which can be designated numerically as Classes 1, 2, 3, 4 and 5. This author suggests that, in this particular dialect, the harmonic concord spreading predominates. That is, for the majority of nouns, it is a phonological feature of the noun that specifies the way in which dependent forms should be pronounced, and it is for the minority of nouns that one would have to resort to some sort of 'exception rule' (Traill 1974b). Traill's work is more elaborate since he gives a full description of the noun classes.

2.3.1.2.   Lexicon

Widlok (N.D.) compiled a !Xóõ dictionary, which includes an introduction on the order of the lexical entries and the orthography used. The dictionary also has several chapters on !Xoo grammatical features and includes an English- !Xoo wordlist. One of the shortcoming's in Widlok's work is that although his focus is on the lexicon, he also covers some phonological and morphological aspects of the language. In other words, his work is varied and lack focus. As observed in Ju/'hoansi, we have not found any work dealing with !Xoo phonology. In what follows, a discussion on the three languages follow.

2.3.2.   Ju/'hoansi, Naro and !Xóõ

So far we have been dealing with individual languages namely Ju/'hoansi, Naro and !Xóõ. In what follows, we are going to consider studies focusing on the three languages. Authors such as Dornan (1925), Greenberg (1955), Roman (1972), Sands (1998) and Heine (1997) have discussed and compared the three language families from a historical linguistic and morphological perspective focusing on areas such as morpho-syntax and on the historical development of these languages. For instance, according to Dornan (1925), the Southern and Northern Khoesan languages have developed along different lines although there are similarities between them pertaining to general sentence construction. Dornan argues that both language groups often have similar words for the names of animals, natural phenomena, and so on. He believes that nouns in these languages make distinction for gender namely, masculine and feminine. The Northern Khoesan languages display considerable regularity in the formation of the plural, which is not the case with the Southern Khoesan languages (Dornan 1925:58).

The Southern and Northern khoesan languages both have exclusive and inclusive forms for personal pronouns, and the same word can be used for the singular and plural of the third person as in *e* 'he, she, it, they' (Dornan 1925:58). This author maintains that all Khoesan languages have a complex verbal system in that the various tenses, moods and voices are indicated by particles or are prefixed or post-fixed to the verbal system. He also argues that relative and reduplicated forms are also exhibited in these languages. Although this is a comparative study on the three languages, there are no examples on the verb complex which is the focus of this study. It is worth noting that the particles/suffixes indicating tense, aspect and mood are attached to the verb root as indicated in figure 1 on page 20 and not on the verb stem as Dornan want us to believe.

Like Dornan (1925), Greenberg (1955) also focuses on the morphology of the three language families under discussion. He notes that the verb root is generally unchangeable in Khoesan languages. Greenberg believes that tense is indicated by particles that stand after the pronoun in Khoesan languages. He states that the past tense is indicated by the particle /go/ in Ju/'hoansi. This same particle corresponds to the /ko/ of the Naro in the Central Khoesan languages and to the !Xóõ /ko/ in the Southern Khoesan languages, all designating the past tense (Greenberg 1955:84). The author above argues that the particle /ka/, which is used for the future tense, is the same for the Northern and Central Khoesan languages.

Heine (1997) deals with grammaticalization chains and their use by examining the structure of gender marking in the Khoe (Central Khoesan) languages of Southern Africa. He defines grammaticalization chains as linguistic categories involving a linguistic form or construction associated with a range of different contextually defined uses. The above author concludes that a study of gender agreement may arise and spread and that the identification of cross-cultural chains has both diachronic and synchronic descriptive goals.

Like Dornan (1925) and Greenberg (1955), Roman (1972) discusses the three Khoesan language groups − Central, Southern and Northern Khoesan. His book has a chapter on the nouns, pronouns, adjectives, demonstratives and gender markings in these languages. According to him, all Khoesan languages indicate noun plurals either by endings or by reduplication. He argues that Naro indicates gender in the plural in the same way as in the singular. Roman observes that Naro also has dual endings and that, in the Northern group, these endings are usually omitted before numerals and the Southern group has various endings for the plural and for the singular. Roman (1972) also observes that the Southern and Central groups have verb endings while the Northern group does not.

Sands (1998) also examined the noun class systems of various Khoesan languages in order to identify shared linguistic features that supported the claim of the genetic relatedness of these languages. She compared the synchronic systems of noun class marking and paid particular attention to irregularities in each system. Sands argues that these irregularities form the basis of internal reconstructions, which were themselves examined for similarities. Sands (1998) discovered five active noun classes in !Xóõ that are defined by their concords rather than by productive suffixes on the nouns, as also observed by Anderson and Janson (1997:163). She points out that a system of tone class also exists, and neither noun nor tone class are entirely predictable. Sands (1998) argues that, unlike in some Khoesan languages, none of the

concordial classes in !Xóõ correspond to natural gender as earlier pointed out by Anderson and Janson (1997:163).

She argues that a simple surface comparison of this system across major Khoesan groups does not reveal many striking similarities in the form and function of noun class markers. The languages compared in her study included one from each of the major groups. The Northern group was represented by data on !Xũ and Ju/'hoansi, the Central group by data on Nama, Korana and Naro, and the Southern group by data on !Xóõ. This author states that the noun class system in Northern Khoesan is based on four or five noun classes none of which correspond to natural gender as Anderson and Janson (1997:149) pointed out earlier. Sands (1998) also notes that a particular pattern is seen in roots that may reflect an older noun class system. She argues that many roots in Khoesan are disyllabic with the consonant beginning the second syllable emanating from a very restricted set. For instance, the only second syllable consonants in !Xóõ are /b, m, n, l, ʃ, ŋ/ (Sands 1998:6). In !Xũ, the medial consonants are from the set /b, m, n, r/ (Snyman 1975). According to her, internal analysis of !Xóõ, Nama, Sandawe and !Xũ indicates that all coda vowels and consonants, as well as the second syllables of nouns, were perhaps once separate morphemes. The above-mentioned authors provide detailed comparisons of the nouns, adjectives and demonstratives of the three languages . However, none of them focused on comparative studies trying to bring to the fore the similarities and differences obtaining in the verb complex of the three languages. Section 2.3.2.1 below summarizes the literature review.

2.3.2.1.   Summary

Most of the studies reviewed above focused on the number of noun classes found in various Khoesan languages, the suffixes used to mark plurals and the person gender and number markers. None of the researchers concerned has illustrated clearly with examples the positioning of the person gender and number markers, the noun classes and their semantic fields, the tense and/or aspect markers and the types of verb constructions found in these languages. The literature review is of great benefit because it provides information that will be of great use in this study. From the dictionaries, I will be able to pick up some of the morphemes used to mark the various extensions. Section 2.3.2.2 below discusses the identified gaps.

2.3.2.2.   Identified Gaps

The literature review conducted here has revealed that there is lack of comparative studies on khoesan languages and the ones that exist lack focus and as such are difficult to follow. In other words, there is lack of studies that will make them possible to be used in education, the ones that are there are varied. Furthermore, there is lack of phonetics studies in Naro and phonological studies in Ju/'hoansi and !Xóõ. Therefore the present study as already mentioned will focus on a comparative study namely the verb complex in the three languages. By doing so, it is believed that it will make a major contribution towards the study of Khoesan languages by bringing materials to be used in education. Section 2.4 briefly discusses the Bantu verb structure.

2.4.   Background on Bantu Verb Structure

Here we need a background on Bantu because we need to know exactly what we mean when we say Bantu verb structure. Because Ju/'hoansi, Naro and !Xóõ – the focus of this dissertation – are not as well known as the Bantu languages, it may be helpful to sketch out the verb structure of the Bantu languages prior to analyzing the verb structure in these languages. In other words, it is important to level the ground by using the Bantu verb structure which is the most well known to people before trying to find out the elements in the verb structure of these languages. Some of the works on the Bantu verb structure include; Comrie 1976, Guma 1971, Machobane 1985, Mutaka 2000, Mabuza 1976, Miti 2001, Mchombo 1993, 1992, Mathangwane 2001 and Dlayedwa 2002.

Typically, the Bantu verb structure is composed of several elements and some of these elements may not necessarily be present in a given verb form. Figure 1 below shows what could be expected in the verb structure of Bantu languages. Thus, verbs in all tenses have a root to which the prefixes and suffixes are attached to form a complex verbal structure and a final vowel -*a*. The final vowel may indicate tense, aspect and mood.

```
                Verb
         NEG           I''
              SM            I'
                    T/A          M'
                         MOD          Micro-stem
                              OM          Verb stem
                                   Verb Rad
            Verb Root          Extension  Final Vowel
```
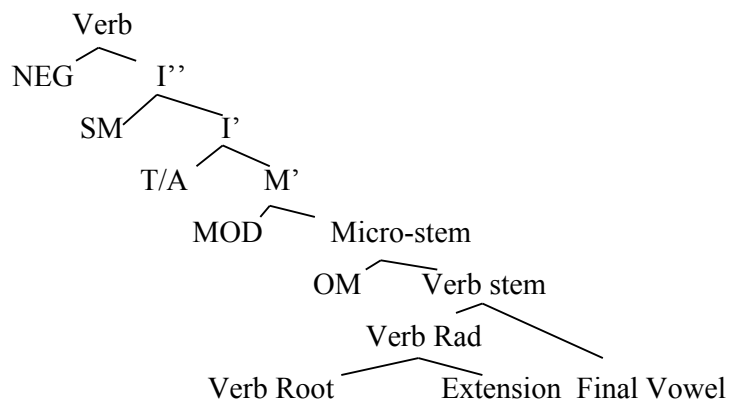
Figure 1: Bantu verb structure as presented in Matambirofa (2003:246)

In Bantu languages, for example Setswana, a verb may be represented by a simple verb form such as *lema* 'plough'. But it could also be represented by a derived verb form such as *lem* (verb root) *–el* (applicative) *–a* (final vowel) 'plough for', *lem* (root) *–w* (passive) *–a* (FV) 'be ploughed'. As indicated in chapter 5, section 5.4, the most common extensions in Bantu languages include the applicative, causative, reciprocal, passive and the reflexive.

The morphology of the Khoesan languages is not as rich as that obtaining in Bantu languages. These are some of the facts that separate the Khoesan languages from the Bantu languages. Chapter 5 contains a more detailed discussion on Khoesan verb structure.

CHAPTER 3: The Linguistic Features of Ju/'Hoansi, Naro and !Xóõ

3.1. The Three Languages

3.1.1. Introduction

In chapter 2 the most relevant works on Khoesan languages under consideration here have been reviewed. In this chapter the linguistic features found in the three languages are analyzed. It is divided into nine sections and each language is discussed separately under the headings mentioned below. More specifically, this chapter focuses on linguistic structures such as the phonology and morphology of Ju/'hoansi, Naro and !Xóõ and also considers the syllable structure, consonants, vowels, tone and the noun class system.

Although there are perculiarities, the phonological features found in Ju/'hoansi, Naro, and !Xóõ are similar to those found in other languages. Thus, the phonological features found in Ju/'hoansi, Naro and !Xóõ include the syllables, consonants, vowels and tone.

However, what sets the Khoesan languages apart is the frequent occurrence of the clicks, which has attracted the attention of many researchers like Snyman (1979), Traill (1991) and Traill and Ladefoged (1993). Thus, consonants in these languages comprise of two categories, namely clicks and ordinary consonants. As indicated in sections 3.1.1.4, 3.2.1.4 and 3.3.1.4, Ju/'hoansi, Naro, and !Xóõ respectively have a five basic vowel system similar to that found in other languages. As is the case with Bantu languages, these languages make use of grammatical and lexical tone. In other words, these languages use grammatical and lexical tones to distinguish the meanings of phrases or words. In what follows each language is considered separately with Ju/'hoansi being discussed first. Nine sections are devoted to this language. Section 3.1.1 deals with the introduction which covers the places where Ju/'hoansi is spoken and section 3.1.1.3 looks at its syllable structure. Section 3.1.1.4 dscribes the consonants and section 3.1.1.5 covers the clicks. Section 3.1.1.6 discusses the vowels and section 3.1.1.7 deals with tone. Section 3.1.2 looks at morphology and section 3.1.2.1 covers the noun class system. Section 3.1.2.2 summarizes the main findings highlighting what happens in Ju/'hoansi concerning the syllable structure, the consonants, vowels, the tone and the noun class system. The same sequence also applies to Naro and !Xóõ.

3.1. 1.1.   JU/'HOANSI

Ju/'hoansi is spoken in Sehithwa, Nokaneng, Tsau, Qangwa, Qaaqa, Dobe, Charles Hill, D'kar, Groote Laagte, Kanagas, Karakobis, Kuke, New Kanagas, Tshobokwane, and West Hanahai villages and in some villages in Namibia. According to Hasselbring (2000:75), between 2124 and 2596 Ju/'hoansi speakers live in Botswana.

3.1.1.2.   Phonological structure

3.1.1.3.   Syllable structure

In most African languages, words can be exhaustively divided into a sequence of syllables. In other words, each word can be analyzed into a succession of units of the same general form, typically containing the peak or nucleus (the most prominent part), the onset (the segment or segments that precede the nucleus) and the coda (the segment that follows the peak). The rhyme, which is composed of both the nucleus and the coda, is the central part of the syllable as opposed to the onset, which is considered more peripheral. The common syllable type in most African languages is CV (consonant vowel) as in the Ju/'hoansi example, *ho* 'sees'. Syllables without onsets when allowed are often restricted to word or phrase initial position.

Canonically, syllables are divided into open syllables (which end in a vowel e.g. CV, V) and closed syllables (which end in a consonant e.g. CVC) as indicated in the !Xóõ example *dzàm* 'palpitate'. Most Khoesan languages have open syllables and as such their canonical syllable structure is CV-CV (cf. symbols and abbreviations) as indicated in the examples below.

(1)   a.   tama   'stab'   Ju/'hoansi

       b.   péré   'bread'   Naro

       c.   boro   'borehole'   !Xóõ

 Another common feature of the syllable structure of Khoesan languages is the distinction between long and short syllables. Long syllables are normally those made up of two (or more) moras, and short syllables consist of only one mora[4]. In a number of Bantu languages, syllabic length (indicated by a colon following the vowel of the respective long syllable or a doubling of the vowel) maybe distinctive as seen in the following Swahili examples taken from the Handbook of The Sound System of Setswana (1999: 30).

---

[4] A mora is a unit of length associated with syllabic quantity.

(2)   a.   [wake]   'wives'

               [wa: ke]   'his/hers'

      b.   [zao]   'crop]

               [za: o]   'theirs'

      c.   [tʃuma]   'pluck'

               [tʃu:ma]   'iron'

A further syllable type found in many African languages including Ju/'hoansi, Naro and !Xóõ is the syllabic nasal N (cf. symbols and abbreviations). According to Clements (2000), this sound usually agrees in place of articulation with a following consonant; it can sometimes be derived from an underlyingly nasalized vowel. What constitutes a well-formed syllable varies from language to language, and, within a language it may also vary according to grammatical status and position (Clements 2000:140). The stem initial syllable, as Clements notes, hosts the largest number of phonemic contrasts. The onset position can be occupied by a single consonant or a complex consonant as shown in this figure below. The example in Figure 2 shows how the English word *stop* is represented syllabically.
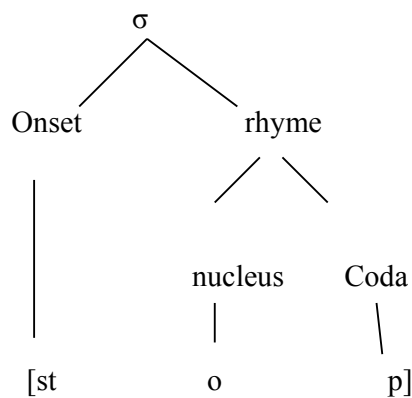
Figure 2: English syllable structure

In terms of the structure in figure 2 above, the onset position is occupied by a consonant cluster [*st*]. On the other hand, the nucleus is occupied by the mid-back vowel [*o*] while the coda is occupied by the voiceless bilabial plosive [*p*].

It should be observed here that within the generative grammar, a syllable is further divided into monomoraic and bimoraic elements. A monomoraic syllable structure has a skeletal or templatic tier of V or CV, and a bimoraic syllable structure would have a VV or CVV skeletal or templatic tier (Department of African Languages and Literature (1999:51). This is exemplified in the Setswana word *lesaka* 'kraal'.
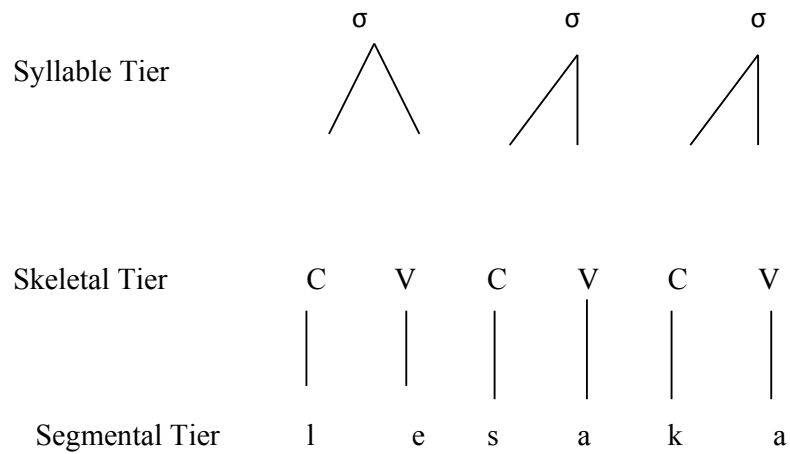
Figure 3: Setswana syllable structure

In the generative grammar referred to above, this diagram illustrates that the word *lesaka* 'kraal' can be described at three tier levels which are connected by association lines. At the syllable level, the word consists of two syllables; at the skeletal level, each syllable is monomoraic (CV), and at the segmental level, each syllable is made up of two segments- a vowel as the nucleus and a consonant as the peripheral or onset element.

Ju/'hoansi has both an open and closed syllable structure and the syllables can be further divided into long and short syllables. In terms of the structure in figure 2 on page 28, in Ju/'hoansi, the onset can be occupied by an ordinary consonant or a click as illustrated in the figure below.
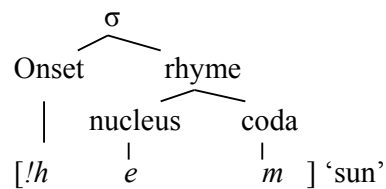
Figure 4: Ju/'hoansi syllable structure

As indicated in the example above, the onset is occupied by the aspirated click [*!h*] whereas the nucleus is occupied by the high vowel [*e*]. However, the coda is occupied by the bilabial nasal [*m*].

In addition, in the generative tradition referred to above, the Ju/'hoansi syllabic structure can be further divided into monomoraic and bimoraic elements. Thus the

Ju/'hoansi word ||*abe* 'hungry' can be described at the three tier level as illustrated in Figure 5.

Syllable Tier   σ   σ

Skeletal Tier   C   V   C   V

Segmental Tier || a   b   e
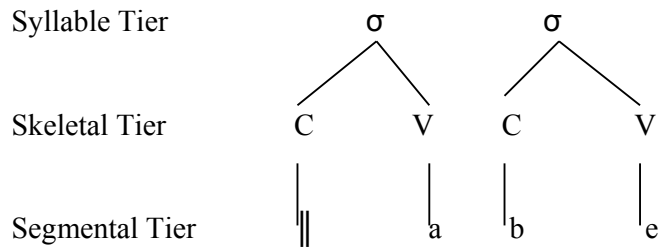
Figure 5: Ju/hoansi syllable tier

In figure 5 above, this diagram illustrates that the word ||*abe* 'hungry' can be described at three tier levels which are connected by association lines. At the syllable level, the word consists of two syllables; at the skeletal level, each syllable is monomoraic (CV), and at the segmental level, each syllable is made up of two segments- a vowel as the nucleus and a consonant as the peripheral or onset element. A description of the sound system in Ju/'hoansi will now be given, starting with the consonants.

3.1.1.4.   Consonants

As is the case in other Khoesan languages, consonants in Ju/'hoansi are divided into two groups: egressive and ingressive. The former are the ordinary consonants and the latter are the clicks. Section 3.1.1.4 therefore discusses the egressive consonants. In terms of the structure in figure 2, the onset can be occupied by an ordinary consonant or a click. The following table shows the ordinary or egressive consonants found in Ju/'hoansi.

Place / Manner	Bilabial	Alveolar	Post-Alveolar	Velar

Plosives and affricates	p ph
	b
	    b'h
		t tx th tx'
		d dɣ
		    d'h
		
		ts tsx tsh
		ts'
		    dzɣ
		dz' dz'h
				k kh kx'
				g gh
				    g'h

			tʃx tʃx tʃh tʃ' dʒɣ dʒ' dʒ'h	
Fricatives	β	s z	ʃ ʒ	x

Nasals	m m
	ʔm
	m:
	    m.m
	    m̠.m̠
				ŋ
				
				ŋ̠

Flapped sounds	ɾ			
Glides	w		y	

Table 2: Ju/'hoansi egressive consonants (Snyman 1970: 35)

Table 2 shows the manner and place of articulation of the ordinary consonants in Ju/'hoansi.

(3) **Examples illustrating some of the consonants.**

    a.   p [p]   peri   'goat', sipa   'sieve'

    b.   b [b~β]   n‖obesa 'chameleon', n|ebu 'to sweep'

    c.   ph [ph~p̪]   kopi 'cup'

    d.   b'h [¿p'h~¿p̪]phu 'burn'

    e.   t [t]   tjù 'house', útò 'car'

    f.   d [d]   dà'ámá 'child', dshau 'woman'

    g.   ts [ts]   tsítsà'á 'question', tsu 'uncle'

    h.   ts' [ts']   ts'i 'lid', ts'ama 'bird'

i.	dz' [¿t̪z']	dz'uu 'ostrich'
j.	tx [tx]	tsõ 'grandmother'
k.	tx' [tx']	tx'ore 'elastic'
l.	dγ [dγ]	dxu 'aeroplane'
m.	tsx [tsx]	tsxana 'diarrhoea'
n.	dzγ [dzγ]	'dzxae 'to run'

The examples in (3), show that the onset can be occupied by a single consonant or by a complex consonant (affricate).

3.1.1.5.   Clicks

As Clements (2000) observes, a click is a multiple articulated sound produced by forming one closure in the front of the mouth with the lips or tongue front and another in the back of the mouth with the tongue dorsum. Clicks are made with the velaric airstream mechanism which is always ingressive. Furthermore, clicks are produced together with a variety of back of the mouth articulation, collectively termed the accompaniment (or efflux).   The front closure is the influx and the simplest accompaniment is a voiceless velar closure. More complex accompaniments include voicing, aspiration, glottalization, nasalization, uvularization, affrication and various combinations of these. Accompaniments are often symbolized by the sound(s) that would be heard if the front closure of the click were removed, for example, k, g, k', kʰ, ŋ, q, kx, qx,   though for simplicity the symbol k is generally omitted. The differences between clicks are attributed to the place of articulation and manner of release: whether delayed or abrupt, and direction of release: whether central or lateral. Most of the words in Khoesan languages begin with a click and that is why they are considered the hallmark of the Khoesan languages including Ju/'hoansi, Naro and !Xóõ and, as already mentioned clicks have been the focus of research in Khoesan languages. As already mentioned in chapter 1, Bantu languages which have come in contact with Khoesan languages seem to have borrowed some of the clicks from them. There are five basic clicks: bilabial (ʘ), dental (│), alveolar (≠), palatal (!) and lateral (‖). Comparatively few languages use all five types of clicks. Only !Xóõ use five.

Table 3 illustrates the four basic clicks in Ju/'hoansi and their accompaniments. It shows the manner and place of articulation of the clicks.

Place / Manner	Dental	Alveolar	Palatal

Plosives		≠ ≠x ≠h
		≠? ≠x? ≠?h
		g≠ g≠γ g≠h
		  g≠γ? g≠?h
			! !x !h
			!? !x? !?h
			g! g! γ g!h
			  g! γ ? g!?h

Fricatives	| |x |h |? |x? |?h g| g|γ		‖ ‖x ‖h ‖? ‖x? ‖?h g‖ g‖ γ g‖h g‖ γ? g‖?h

Nasals	ŋ | ŋ |h
	  ŋ |h?
		ŋ≠ ŋ≠h
		  ŋ≠?h
			ŋ! ŋ |h
			  ŋ |?h
			ŋ‖ ŋ‖h
			  ŋ‖?h

Table 3: Ju/'hoansi Clicks (Snyman 1970: 50)

(4)   **Examples illustrating some of the clicks**

a.   ≠ [≠]   ≠eu 'giraffe'

b.   ≠? [≠?]   ≠'em 'south'

c.   g≠ [g≠]   g≠wa   'millet'

d.   ≠x [≠x]   ≠xanu 'book'

e.   ≠x? [≠x?]   ≠x'ao 'north'

f.   g≠γ [g≠γ]   g≠xare 'to thresh'

g.   g≠γ? [g≠γ?]   g≠x'aro 'duiker'

h.   ≠h [≠]   ≠hana 'bald'

i.   ≠? h [≠?   ]   ≠'ha 'arm'

j.   g≠h [g≠   ]   g≠haa 'to trust'

k.   g≠?h [g≠?   ]   g≠'hwa 'dog'

l.   ! [!]   !wi 'sister'

m.   !? [!?]   !'u 'bone'

n.   g!   g!o 'ostrich'

o.   !x [!x]   !xei 'to cut'

p.   !x? [!x?]   !x'oi 'dog'

q.   g!γ [g!γ]   g!xwa 'knee'

The examples in (4) indicate that the clicks in Ju/'hoansi occupy the onset position.

Vowels

The three languages have a basic five vowel system. As is well known among linguists, vowels are described in terms of the position and height of the tongue, as indicated in the diagram that follows.

Ju/'hoansi has five vowels, which can be long, nasalized or occur as diphthongs. As seen in figure 2 and 4, the vowels would occupy the nucleus as part of the rhyme.
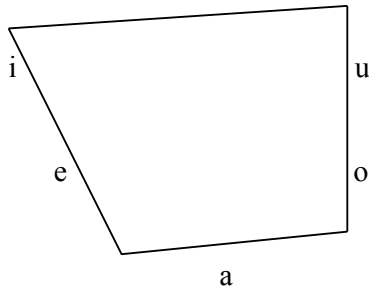
Table 4: Ju/'hoansi vowels

(5)   **Examples illustrating Ju/'hoansi vowels**

a.   **[i]**   dibi   'salt'

b.   **[e]**   !'em   'to assemble'

c.   **[a]**   za   'blood'

d.   **[o]**   g!oo   'bull'

e.   **[u]**   n!eu   'elder'

- **Long vowels**

f.   **[i:]**   dii 'lightning'

g.   **[a:]**   !haa 'to run'

h.   [ɔ:]   g!o̱o 'bull'

i.   **[u:]**   ghuu 'sheep'

j.   **[o:]**   ǀhoo 'to follow'

The examples in (5) show the basic vowels found in Ju/'hoansi. In addition, these vowels can be long as indicated in examples (f-j).

- **Diphthongs-** These are long vowels that involve the maintaining of an articulatory position that is relatively constant; however, temporarily equivalent articulation may be made by moving from one vowel position to another through the intervening positions.

k. **[əi]**   !xei   'cloth'

l. **[əu]**   ≠eu   'smear'

m. **[ae]**   │x'ae 'to be ill'

n. **[ao]**   │xao 'to pay'

o. **[oi]**   !x'oi   'hair'

p. **[oe]**   g!we   'shoe'

q. **[oa]**   n│wa 'cat'

- **Glottalised vowels-** These are diphthongs that contain a glottal stop Snyman (1970:24).

  a. **/a'a/**   **[aʔa]**   da'a 'fire'

  b. **/a'e/**   **[aʔe]**   ║a'e 'monkey'

  c. **/a'o/**   **[aʔo]**   !a'o 'leopard'

  d. **/e'e/**   **[əʔə]**   de'ebi 'children'

  e. **/e'u/**   **[əʔu]**   !e'u 'white'

  f. **/e'i/**   **[əʔi]**   g!e'I 'to go out'

  g. **/i'i/**   **[iʔi]**   tši'i-tsi'i 'to hiccup'

  h. **/o'a/**   **[oʔa]**   g!o'a 'afternoon'

  i. **/o'o/**   **[oʔo]**   n!o'o 'fast'

  j. **/u'i/**   **[uʔu]**   ku'u 'to burn'

- **Nasalized vowels**

  k. **[ĩ]**   tsusĩ 'uncles'

  l. **[ã̱]**   šã̱ 'to rest'

  m. **[õ]**   !'õ 'to dream'

  n. **[ũ]**   ts'ũ 'nose'

- **Nasalized diphthongs**

  o. **[əĩ], [əũ], [uĩ], [ã̃ʔã̃], [ẽʔĩ], [ẽʔũ], [õʔã̃], [õʔõ]**

The examples above indicate that the five basic vowels in Ju/'hoansi can be long, diphthongs, glottalised and nasalized.

3.1.1.7.   Tone

As is the case with most African languages, a tone language is the one in which differences in relative pitch are used to convey lexical and grammatical distinctions. Tone can be defined as height of pitch and change of pitch that is associated with the pronunciation of syllables or words and which affects the meaning of the word concerned. Given two words that are orthographically the same, it is the tone that will sort out the meaning. In a typical tone language, the distinction between H (high) tone and L (low) tone or between H (high), M (medium) and L (low) tone is found in all syllables. Two common types of tone are encountered: lexical tone and grammatical tone. Lexical tone distinguishes meanings of graphically similar words while grammatical tone distinguishes grammatical categories such as tense. The three languages under consideration, make use of grammatical and lexical tone as pointed out earlier. Example (6a-b) below shows grammatical tone while (6c-d) represents lexical tone.

(6)   a.   Ke Mphó   'I am Mpho'   'Setswana'

       b.   Ké Mphó   'It is Mpho'

       c.   mafátlhá   'twins'   'Setswana'

       d.   mafatlha   'chest'

As example (7) indicates, Ju/'hoansi only uses lexical tone.

(7)   a.   gú   'build'

       b.   gù   'take'

3.1.2. Morphology

After dealing with the phonological structure of Ju/'hoansi, in what follows is a discussion on morphology. Morphology on the other hand, deals with the structure of words. Two main fields are traditionally recognized in morphology: inflectional and derivational morphology. Inflectional morphology concerns the ways in which words vary in order to express grammatical contrasts in sentences, such as singular/plural or present/past tense (Crystal 1987:90). On the other hand, derivational morphology concerns the principles governing the construction of new words. The next section briefly discusses the noun class system found in Ju/'hoansi. As will be seen in section 3.1.2.1, Ju/'hoansi makes use of derivational morphology. Chapter 5 provides a detailed discussion of the noun class system and the tense and aspect markers in this language.

3.1.2.1.   Noun Class System

Some languages divide noun classes into two or more inflectional classes, based on shared phonological and/ or semantic properties. Many Bantu languages, for instance, use prefixes to distinguish among more than a dozen noun classes. Noun classes can be marked in a variety of ways. In some languages, the determiner is inflected to indicate the class of the noun. For example, French uses the definite determiner *le* for masculine singular nouns and *la* for feminine singular nouns (O'Grady et. al. 1997:165). In other languages, inflectional affixes rather than determiners are used to indicate the gender class of a noun.

The number of noun classes varies from one language to another and Khoesan languages do not have many noun classes like Bantu languages. Ju/'hoansi nouns are categorized according to five sets of third person pronouns used to refer to them. Ju/'hoansi pronouns, do not change their form according to whether they function as subjects, objects or possessives. For an instance, *mi* corresponds to 'I', 'me' and 'my'. Nouns other than those referring to humans have different sets of pronouns although some overlapping occurs. Unfortunately, it is not always possible to predict the class of a noun by its meaning- the class must be learnt when the noun itself is learnt. The classes are, *ha/sa*(cl 1) *, ha/hi* (cl 2)*, ha* (cl 3)*, hi* (cl 4) *and ka* (cl 5)*.* Chapter 5 provides a detailed discussion of the noun classes.

3.1.2.2.   Summary

Ju/'hoansi has both an open and closed syllable structure. The consonants found in this language are divided into two groups: the common consonants and the clicks. In this language, most of the words begin with a click. Four types of clicks are found in Ju/'hoansi: dental, alveolar, palatal and lateral clicks. The vowel system is quite complex with a distinction made between basic and nasalized vowels. There are three tones: high, mid and low. Ju/'hoansi nouns are categorized according to five sets of third person pronouns used to refer to them. It is not always possible to predict the class of a noun by its meaning; rather the class must be learnt. The following section discusses Naro phonological and morphological structures.

3.2.   NARO

As mentioned in section 1.1, Naro is spoken in various villages in the Ghanzi and northwestern districts of Botswana and in some central eastern villages in Namibia. The villages in Botswana include; Bere, Charles Hill, D'kar, East Hanahai, Groote Laagte,

Karakobis, Kuke, Makunda, New Kanagas, Tshobokwane, and West Hanahai. There are between 6540 and 7994 Naro speakers in the Ghanzi area (Hasselbring 2000:11).

3.2.1.   Phonological structure

3.2.1.1.   Syllable structure

Section 3.2.1.1 describes Naro syllable structure. A more detailed discussion on the syllable structure in general, was discussed in section 3.1.1.1. Examples in (8) indicate that Naro has both an open and closed syllable structure.

(8)   a.   **CV**   te   'me'

        b.   **CVCV**   còrè   'pray'

However, unlike in Ju/'hoansi, a distinction between long and short syllables does not seem to exist in Naro. In terms of the structure in figure 2, in Naro as observed in Ju/'hoansi, the onset can be occupied by an ordinary consonant or a click as figure 6 below illustrates
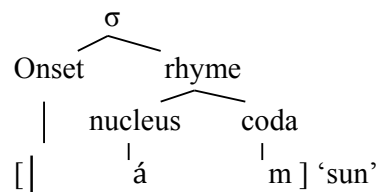
Figure 6: Naro syllable structure

As indicated in the diagram above, the onset is occupied by the dental click [│] whereas the nucleus is occupied by the low vowel [á] and the coda is occupied by the bilabial nasal [m].

In addition, in the generative grammar, Naro syllabic structure can be further divided into monomoraic and bimoraic elements as seen in Ju/'hoansi. Thus the Naro word ‖àbà 'be hungry' can be described at the three tier level as illustrated in Figure 7.
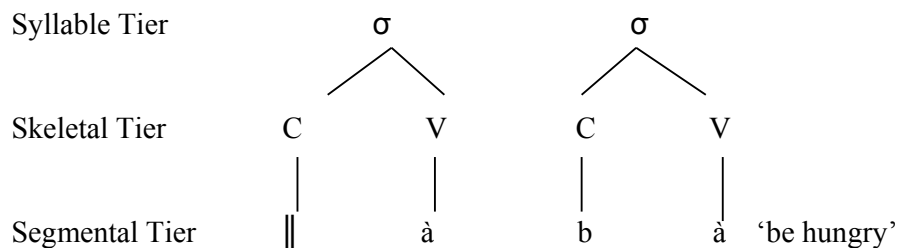
Figure 7: Naro syllable tier

In figure 7 above, the word ‖*à*b*à* 'be hungry' can be described at three tier levels which are connected by association lines. At the syllable level, the word consists of two syllables; at the skeletal level, each syllable is monomoraic (CV), and at the segmental level, each syllable is made up of two segments- a vowel as the nucleus and a consonant as the peripheral or onset element.

A description of the sound system in Naro will now be given, starting with the consonants.

3.2.1.2.   Consonants

According to Visser (1998:118), Naro has a basic set of egressive consonants produced with the pulmonic airstream. In addition, several ejectives are made with the glottalic airstream mechanism, as well as ingressive consonants, 'clicks'. The egressive consonants can occur in different positions in the root: those that are found in initial positions in the root structure and those that are found in the middle of the words. Table 5 summarizes the consonants (charts provided by Visser 1998:119).

Place ╱ Manner	Labial	Alveolar stop	Alveolar affricate	Velar	Glottal
Obstruents:					
voiceless stops/affricates	(p)	t	ts	k	
voiceless aspirated stops/affricates	(ph)	th	tsh	kh	
velar fricative voiceless release		tx	tsx	kx	
voiceless ejective stops/affricates		t'	ts'	kx'	
voiced stops/affricates	b	d	dz	g	
voiceless fricative		s		x	h
Sonorants:					
Nasal sonorants	m	n			

Table 5: Naro egressive Consonants (Visser 1998)

Table 5 shows that the egressive consonants are articulated at the same positions as the egressive consonants in Ju/'hoansi except for the glottal consonant. Furthermore, the manner in which the consonants are articulated is the same as in Ju/'hoansi.

The following consonants are found in Ju/'hoansi but not in Naro; β, gh, gh, ɖγ, dh, dzγ, dz h, w and **y**. Conversely, the glottal [h] appears in Naro but not in Ju/'hoansi.

The voiceless bilabial plosive [p] and the voiceless aspirated bilabial plosive [ph] are rare in Naro, which explains why they are placed in parentheses.

Interestingly, only the bilabial nasal [m] is found in the root final position, just as in Ju/'hoansi (personal communication, Miller-Ockhuizen 2003). As seen in figures 5, generally the consonants in Naro, occupy the onset position.

(9)   Examples illustrating some of the consonants in Naro.

a.	b [b]	bèe	'to be afraid'
b.	d[d]	dàò	'path
c.	g [x]	gaì	'kudu'
d.	gh [g]	ghòè	'cow'
e.	h [h]	hàà	'to come'
f.	k [k]	káà	'empty'
g.	kg [kx]	kgàra	'spit'
h.	kg'[kx']	kg'áà	'to drink'
i.	kh [kh]	kháó	'lower part of back'
j.	m [m]	máà	'to give'
k.	n [n]	cgáné	'guineafowl'
l.	p [p]	piri	'goat'
m.	ph [ph]	pháè	'raise eyebrows'
n.	t [t]	túú	'rain'
o.	th [th]	thìri	'blunt'
p.	ts [ts]	tsàa	'be sick'
q.	tsh [tsh]	tshàa	'water'
r.	ts' [ts']	ts'éè	'sharp'
s.	t' [t']	t'õè	'beautiful'
t.	z [dz]	zàró	'to insult'

As is the case in Ju/'hoansi, the consonants in Naro usually occupy the onset position.

3.2.1.3. Clicks

Refer to Section 3.1.1.5 for a more detailed discussion on clicks.

Place / Manner	Dental	Alveolar	Palatal	Lateral
voiceless	ǀ	ǂ	ǃ	ǁ
voiced	gǀ	gǂ	gǃ	gǁ
nasal	nǀ	nǂ	nǃ	nǁ
ejective	ǀʼ	ǂʼ	ǃʼ	ǁʼ
aspirated	ǀh	ǂh	ǃh	ǁh
fric release	ǀx	ǂx	ǃx	ǁx
ej fric release	ǀxʼ	ǂxʼ	ǃxʼ	ǁxʼ

Table 6: Naro clicks (Visser 1998:120)

As was the case in Ju/'hoansi, in Naro there are four basic clicks namely the dental, alveolar, palatal and lateral clicks. As compared to Ju/'hoansi, Naro has less click accompaniments. Furthermore, the clicks occupy the onset position as observed in the Ju/'hoansi examples.

(10) Examples illustrating some of the clicks in Naro
a. c [ǀ] cáò 'buffalo'
b. cg [ǀx] cgóò 'gemsbok'
c. cg' [ǀx] cg'ao 'snake'
d. ch [ǀh] cháó 'bag'
e. c' [ǀ'] c'ee 'fire'
f. dc [gǀ] dcàò 'to prune'
g. nc [nǀ] ncìí 'old'
h. q [ǃ] qaa 'to seek'
i. qg [ǃx] qgài 'cold'
j. qg' [ǃx'] qg'áó 'neck'
k. qh [ǃ h] qháé 'quick'
l. q' [ǃ'] q'aa 'separate'
m. dq [gǃ] dqàà 'needle'
n. nq [nǃ] nqáé 'to pass'
o. tc [ǂ] tcee 'ear'
p. tcg [ǂx] tcguù 'to be wet'
q. tcg' [ǂx'] tcg'ae 'to spit'

r.	tch [≠h]	tchàu	'dew'
s.	tc' [≠']	tc'áá	'to slaughter'
t.	dtc [g≠]	dtcòo	'springhare'
u.	ntc [n≠]	ntcàù	'to catch'
w.	x [‖]	xàbà	'be hungry'
x.	xg [‖h]	xg áì	'breastbone'
y.	xg' [‖x']	xg'aà	'to wash'
z.	xh [‖h]	xhàro	'screen'

The examples in (10) suggest that the clicks in Naro occupy the onset position as is the case in Ju/'hoansi.

3.2.1.4. Vowels

Table shows the five basic vowels found in Naro.
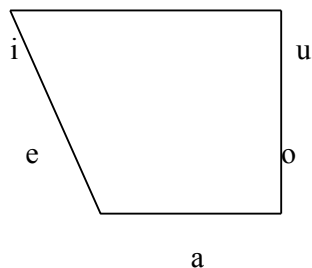
Table 7: Naro vowels

Naro is similar to Ju/'hoansi in the sense that it has five basic vowels.

Vowels in this language can either be nasalized or pharyngealized. However, unlike in Ju/'hoansi, where four of the five basic vowels are nasalized, in Naro only three vowels can be nasalized as the following examples indicate: [ĩ], [ã] and [ũ].

Naro differs from Ju/'hoansi in the sense that, in the latter two vowels are pharyngealized namely [o̠] and [a̠]. Finally, contrary to Ju/'hoansi, from the assistants it is not clear that there are diphthongs, interrupted and long vowels in Naro.

(11)   **Examples illustrating Naro vowels (from Budzani Gabanamotse 2003)**
         Basic vowels

a.	**[a]**	ábà	'deliver'
b.	**[e]**	te	'me'
c.	**[i]**	xàbì	'hill'
d.	**[o]**	cgòro	'beard'

e.	**[u]**	cgùri	'seed'

Nasalized vowels

f.	**[ã]**	tcgãya	'paper'
g.	**[ẽ]**	sẽya	'spill'
h.	**[õ]**	tshõyà	'tease'

Pharyngealized vowels

i.	[**o̲**]	h<u>o</u>ri	'lizard'
j.	[**a̲**]	t<u>a</u>be	'salt'

3.2.1.5.   Tone

As is the case with Ju/'hoansi, Naro uses lexical tone to distinguish orthographically similar words. Naro displays three tones namely; high, mid and low. The following examples show lexical tone in Naro.

(12)	a.	cám	'sun'
	b.	càm '	'morama-root
	c.	qoó	'heavy'
	d.	qoò	'wrist'

If there is no tone marking and the words are written the same, it is impossible to differentiate them but as we can see in (12a and 12b) tone marking makes the words to have different meanings.

3.2.2.   Morphology

3.2.2.1.   Noun Class System

Unlike in Ju/'hoansi where nouns are categorized according to five sets of third person pronouns, in Naro nouns are categorized into a combination of grammatical and natural gender. In Naro masculine and feminine suffixes signify more than just maleness and femaleness. Thus, the masculine suffix *–ba* conveys the notions of strength, tallness or slenderness, while the feminine suffix *–sa* adds the notions of smallness, weakness or roundness. The same thing applies to objects, those that are long and or strong are male while those that are round and or weak are female. Although this is discussed in detail in chapter 5, for the sake of clarity we will give examples of masculine and feminine nouns in this chapter. Thus, *khoeba* 'man', *khoesa* 'woman', *bòóba* 'axe' and *suusa* 'pot' (section 5.2.1.1.).

Summary

As observed, Naro has both an open and closed syllable structure just like Ju/'hoansi. As is the case with Ju/'hoansi, Naro has a basic five vowel system. Furthermore, as is the case with Ju/'hoansi, in Naro the onset position is occupied by clicks or ordinary consonants. However, the nucleus is occupied by the vowels while the coda is occupied by ordinary consonants. Naro displays lexical tone like Ju/'hoansi. Unlike in Ju/'hoansi, in Naro nouns are categorized into grammatical and natural gender. The gender issue is much more elaborate and clear in Naro than in Ju/'hoansi.

3.3. **!XÓÕ**

As stated in chapter 1, section 1.2, !Xóõ is spoken in the Ghanzi districts in Botswana in Bere, Kacgae, Takatshwane, Charles Hill, Tshobokwane villages, and some villages in Namibia. There are between 230-280 !Xóõ speakers in the Ghanzi area (Hasselbring 2000:75).

3.3.1.   **Phonological structure**

3.3.1.1.   **Syllable Structure**

For a more detailed discussion on the syllable structure in general, see Section 3.1.1.3. !Xóõ has both an open and closed syllable structure as indicated in the examples below.

(13**)**   a.   **CV**   !o   'knife'

         b.   **CVCV**   tãhli   'blunt'

As already mentioned, !Xóõ has an open syllable structure as indicated in the examples above. In terms of the structure in figure 2, in !Xóõ as observed in Ju/'hoansi and Naro, ordinary consonants or clicks occupy the onset position as illustrated in figure 8 below.
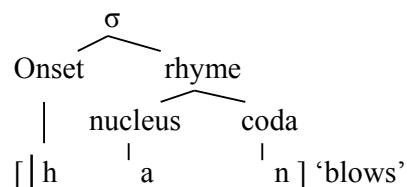
```
                 σ
            ⌢
      Onset      rhyme
        │      ⌢
        │    nucleus    coda
        │       │         │
     [│ h      a          n ] 'blows'
```
Figure 8: !Xóõ syllable structure

Figure 6 above, shows that the onset is occupied by the aspirated dental click [│h] whereas the nucleus is occupied by the low vowel [a]. However, the coda is occupied by the alveolar nasal [n].

In addition, in terms of the generative grammar referred to earlier, !Xóõ syllabic structure can be further divided into monomoraic and bimoraic elements as seen in Ju/'hoansi and Naro. Thus the !Xóõ word *tãhli* ' blunt' can be described at the three tier level as illustrated in Figure 9 below.

Syllable Tier   σ   σ

Skeletal Tier   C   V   C   V

Segmental Tier   t   ã   hl   i 'blunt'

Figure 9: !Xóõ syllable tier

In figure 9 above, the word *tãhli* 'blunt' can be described at three tier levels which are connected by association lines. At the syllable level, the word consists of two syllables; at the skeletal level, each syllable is monomoraic (CV), and at the segmental level, each syllable is made up of two segments- a vowel as the nucleus and a consonant as the peripheral or onset element.

A description of the sound system in !Xóõ follows, starting with the consonants.

3.3.1.2.   Consonants

Table 8 shows the consonants found in !Xóõ grouped according to their manner and place of articulation. The table is taken from Traill (1985:121).

Place / Manner of articulation	Bilabial	Dental	Post dental	Velar	Uvular
Basic	(p)	t	ts	k	q
Aspirated	(ph)	th	tsh	kh	qh
Voiced	b	d	dz	g	(N) G
Voiced & aspirated		dth	dtsh		
Uvular fricative		tx	tsx		
Voiced & uvular fricative		dtx	dtsx		
Ejected			ts?	kx?	(q?)
Ejecetd * ejected uvular fricative		t?kx?	ts?kx?		
Voiced & t?/ts? & kx?		Dt?kx?	dts?kx?		
Central			s	x	
Plain	m	N			
Glottalized	?m	?n			
Lateral			(l)		

Table 8: !Xóõ egressive consonants (Traill 1985:3)

Table 8 shows that the egressive consonants in !Xóõ occupy the onset position as the egressive consonants in Ju/'hoansi and Naro except for the glottal in Naro and the uvular in !Xóõ. The two voiceless bilabial plosive (p) and voiceless aspirated plosive (ph) occur only in borrowings and also in very few words just as in Naro. The ejected uvular stop is also found in very few words. The manner and place of articulation of consonants in !Xóõ is the same as the ones for Ju/'hoansi and Naro. Some of the consonants in !Xóõ are found in examples such as *boro* 'borehole', *páli* 'goat', *táhu* 'mat', *dáã* 'praise', *kái* 'grow', *gali* 'turn' etc.

3.3.1.3.   Clicks

See section 3.1.1.5 for a detailed discussion on clicks.

Unlike in Ju/'hoansi and Naro, five basic clicks are found in !Xóõ. Amongst the three languages, the bilabial click is only found in !Xóõ. This language has more click accompaniments than Ju/'hoansi and Naro. Given the multiplicity of clicks which can be generated by what we hear the speakers saying, I have observed that it will be

difficult to put these clicks and their accompaniments in a table since they are too many.The five basic clicks found in !Xóõ are as follows.

(14)   a.   /ʘ/   ʘôõ 'dream'

          b.   /ǀ/   ǀâo 'move off'

          c.   /ǂ/   ǂàha 'knock'

          d.   /ǃ/   ǃââ 'wait'

          e.   /ǁ/   ǁāã 'poison'

3.3.1.4.   Vowels

As is the case with Ju/'hoansi and Naro, !Xóõ has five basic vowels. The basic vowels in !Xóõ are shown in table 9 below.
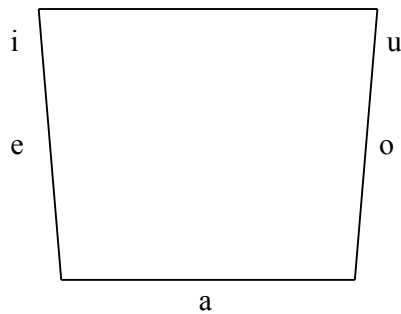
Table 9: !Xóõ vowels

All the three languages display five basic vowels. As observed in Ju/'hoansi and Naro, vowels become complex in terms of their variations and !Xóõ is no exception. In this language vowels can be nasalized and pharyngealized like in Naro. Vowels in !Xóõ can also be nasalized and glottalized like the ones in Ju/'hoansi. Unlike in Ju/'hoansi and Naro, breathy voiced vowels are found in !Xóõ. However, long vowels and diphthongs seem to exist in Ju/'hoansi only and not in the other two languages.

The following examples illustrate the vowels occurring in !Xóõ.

(15)   **Basic vowels**

        a.   sî**i** **'**come', sē**e** 'truth', sâ**a** 'go', sò**o** 'medicine',sún **'**silliness'

        Nasalized -This is a vowel that is nasalized by a process in which the soft palate is lowered, opening the velum, which allows air to go through both the nasal and oral cavities (Crystal 1985:38).

        b.   qā**ã** 'gum', ʘô**õ** 'dream', gú**ũ** 'stupidity'

Breathy – A breathy vowel is one produced by allowing a great deal of air to pass through slightly open glottis, the aperture between the vocal cords (Crystal 1985:38).

c.   īh- 'we', gùhm 'space', èh 'he'

Pharyngealized – These vowels have a narrower pharyngeal passage and a raised larynx (Traill 1985:26).

d.   q**à̱**a 'long ago', t**ù̱**m 'skin'

Glottalized- Glottalised vowels are always produced with a falling pitch contour and a creaky voice (Traill 1985:26).

e.   tìʔi 'this''qúʔm 'tattoo'

Breathy and nasalized

f.   ʔʘnà**h ā** 'body', │ō**h õ** 'buy'

Breathy and glottalized

g.   Gá**hʔ**n 'awaken', ù**hʔ**u 'they'

Breathy, nasalized and glottalized

h.   à**hʔã** 'where', dzò**hʔã** 'ant'

Pharyngealized and nasalized

i.   t**a̱ã** 'listen', ʘn**u̱ũ** 'louse**'**

Pharyngealized and glottalized

(j)   │g**ú̱ʔ**m 'grass'

Pharyngealized and breathy

k.   t**ù̱**hla 'spread'

Pharyngealized, nasalized and breathy

l.   dz**a̱hĩ** 'fly'

Glottalized and nasalized

m.   tiʔĩ 'say', sàʔã 'face', qôʔõ 'forget', sûʔũ 'bird'

Examples in (15) show the multiple variations of the five basic vowels in !Xóõ.

3.3.1.5.   **Tone**

As was the case in Ju/ʼhoansi and Naro, !Xóõ has lexical tone. Furthermore, three tones are distinguished in !Xóõ as was the case in Ju/ʼhoansi and Naro.

Consider the examples below.

(16)   **H vs. M**

a.   sé   'soap'

       sē   'truth'

•   **H vs. L**

b. ‖gáe   'shoulder'

‖gàe   'sunlight'

- **M vs. L**

c. tshōa   'still'

tshòa   'brand'

Before the application of the tone, the words are basically the same but as we can see from the examples above, tone marking makes the words to have different meanings.

3.3.2.   Morphology

For a detailed discussion on morphology, see Section 3.2.

3.3.2.1.   Noun Class System

There are five noun classes in !Xóõ. The membership to a particular class is determined by noting the concords that accompany a noun because it is frequently not possible to decide on class membership. Traill (1994:21) and the assistants, have also identified five noun classes in this language (for a more detailed discussion on noun classes, refer to sections 5.3.1 and 5.3.1.1.).

The nouns fall into five concordial classes as illustrated in table10 below.

	Identifiable suffix	Concord
1 (sg)	-li, -i	-i
2	-ã, -ma, -n, -na	-a, -ã
3 (animate, sg)	-le, -e, -je, -be	-e
4 (animate, pl)	-lu, -bu, -u	-u
5		-n

Table 10: !Xóõ noun class concord

Nominal compounds are also found in !Xóõ as illustrated in the following example; *sòo* (class 1) + *àa* (class 3) > *sòoàa* (class 2) 'medicine man'.

Most borrowings are assigned to class 3 in the singular and class 4 in the plural (Traill 1994:22). Unlike in Naro, none of the concordial classes in !Xóõ correspond to natural gender. Nouns in !Xóõ fall into five sets of third person pronouns just like in Ju/'hoansi.

3.3.2.2.   Summary

The consonant system of the three languages consists of two subsystems, clicks and ordinary consonants. At the same time, Ju/'hoansi, Naro and !Xóõ have systems of

five basic vowels: / a e i o u/. As observed earlier, vowels can often be pharyngealized or nasalized and this increases the number of vowel phonemes. The three languages mentioned above display lexical tone. The onset position in the three languages is occupied by the ordinary consonants and the clicks. However, vowels occupy the nucleus position while the coda is occupied by the ordinary consonants.

Major differences in the three languages occur at the grammatical level, for example, Ju/'hoansi has less morphology compared to Naro. On the other hand, Naro has a unique nominal and pronominal person gender and number (PGN) system compared to Ju/'hoansi and !Xóõ and a large variety of verbal constructions. In !Xóõ, the bilabial click influx is unique.

CHAPTER 4: Research Methodoloty and Theoretical Framework

4.1.   Introduction

The literature review undertaken in chapter 2, reveals that there is a paucity of research dealing with the structure of Khoesan languages. One of the major problems when dealing with less studied languages, such as these ones, is that one is not even sure of what she will find in the languages, because even the grammatical labels which are usually used in linguistic studies might not be applicable to them. Thus, sufficient data should be collected and analyzed to elecit the elements that form the verb complex in Ju/'hoansi, Naro and !Xóõ. In order to achieve this, a specific methodology was adopted. This chapter therefore presents the research methodology employed in carrying out the task at hand. There are three sections to the chapter. Section 4.1.1 presents the strategy used to collect the relevant data, section 4.1.1.1 discusses the challenges to the data collection exercise, section 4.1.1.2 deals with the theoretical framework used in this study. Lastly, section 4.2. gives the summary highlighting the main points.

4.1.1.   Data Collection

As will be seen below, various techniques were used to collect the data including the available books. As said earlier, not much has been done on Khoesan languages. The original plan was to make sure that data was collected from people who were fluent in the three languages and also least influenced by other languages especially Setswana, Sekgalagadi and Afrikaans. That meant trying as much as possible to get monolingual speakers of the languages under study and this was not easy since many Khoesan people have moved to the cities. This meant in turn gathering data from areas which were far from the villages/towns where Setswana, Sekgalagadi and Afrikaans were spoken. It became obvious that such a plan could not work. For one thing, with increased mobility, most people are exposed to the influence of Setswana, Sekgalagadi and Afrikaans, through employment opportunities and education. Secondly, knowing the assistants helped to build a good working relationship. Quite a number of researchers have found out that part of the fieldwork is to build such relationship.

Thus Wolfson (1978: 205) says that:

There can be no better site for the observation of free conversation

than the circle of one's own friends and associates. It is only from

the speech of those we know well enough to see frequently in a large

number of different situations that we can get a view in depth of how a variable is used.

In the case of the task at hand, the first main task was to build an environment conducive for data collection. Different places were visited for data collection. The Naro and !Xóõ data was collected in Ghanzi area in villages such as Bere, Kacgae and Newxade. This agglomeration was chosen because it is one of Botswana's developing villages in the Kalahari District where many people speak many different Khoesan languages as their mother tongues. Of late, people who speak different languages and coming from different ethnic groups have come to settle in this district. On the other hand, the Ju│'hoansi data was collected in Qangwa village. Since the researcher cannot speak any of the languages, she chose one speaker (key assistant) from each language to write and translate for her.

Most of the research was therefore carried out among groups of people that were well known to the key assistants. Some of the assistants were familiar to the researcher from previous research. Moreover, it was discovered that the Khoesan people from the three languages were not only fluent in their languages, but most of them also did not codeswitch between either their language and Afrikaans, Sekgalagadi or Setswana.

In order to get a representative sample, the researcher had to get as much data as possible. This meant that data had to be obtained from different sources such as interviews, questionnaires, dictionaries and books such as Ju/'hoan Grammar (Dickens 1992), Phonetics and Phonological studies of !Xóõ Bushman (Traill 1985), An introduction to the !Xũ language (Snyman 1970), Naro-English, English-Naro dictionary (Visser 2001) etc. In eliciting textual data, a variety of methods were used. The tape recorder and the video camera were used to gather most of the data. Two types of interviews were planned from the beginning: structured and unstructured interviews. The structured interviews were those where the researcher explained the data on the questionnaires to the assistants and later gave them to complete. The questionnaires comprised of Setswana sentences on tense and aspect markers as well as verbal extensions. On the other hand, in case of those assistants who could neither read nor write, the key assistants read them the sentences. In some cases, the participants were the researcher and one assistant in case of those who understood Setswana and English and also could write in their own languages; and in other situations there were a number of assistants and the key assistant. In these situations the assistants were aware that they were being recorded.

On the other hand, the unstructured interviews were supposed to represent more casual conversations. In this case the researcher was expected to be an active participant. This turned out well just like the structured interviews. Eight assistants were then interviewed from !Xóõ,

seven from Ju│'hoansi and five from Naro. Of these ten were males and the remainders were females. Their ages ranged between twenty-four and seventy. The study focused more on elders since in linguistic studies it is usually the case that the elderly possess a solid knowledge of the languages under investigation. Since the researcher cannot speak any of these languages, the assistants helped in analyzing the data. The data collected was put to use in different ways during the various stages of the writing up, and some of these are dealt with in the chapter that follows.

4.1.1.1.   Challenges to the data collection exercise

However, it should be noted that the data collection exercise was not without challenges. Chief among them were accommodation, availability of data and limited samples.

4.1.1.2.   Accommodation

Accommodation was a problem in the Qangwa area. Worse still, there was no communication; cellphones do not work in those areas and there are no shops where one could buy whatever he/she needs. The researcher did not manage to use the video camera throughout because the battery went off and there was nowhere to charge since there is no electricity.

4.1.1.3.   Availability of Data

It was a double task collecting the data and looking for the assistants at the same time since they move from place to place to check on their relatives, go hunting and check on their livestock at the cattleposts. Since they did not have phones, it was very difficulty to locate them and this was very expensive for the researcher since she had to look for them in different places. Furthermore, some assistants lost the questionnaires and after looking at the number of questionnaires lost, the researcher had to administer those that were not distributed to avoid using more money in photocopying the questionnaires. Administering the questionnaires and conducting interviews was time consuming.

Most of the assistants did not honour appointments. This was stressful and demoralizing since the researcher had to cancel other appointments where the assistants came late or did not come at all. On the other hand, some assistants did not answer some questions and this made the analysis difficult.

4.1.1.4.   Limited Samples

Because of time and financial constraints, limited samples were used. This was a challenge considering the number of villages where these speakers are found. Despite all these challenges, the research went well and the researcher managed to accomplish all that she had intended to.

4.1.1.5.   Limitations of the study

As mentioned before in chapter 1, the study is regarded as a major contribution of a comparative study of the Northern, Central and Southern Khoesan languages. However, because of the nature of the study, it does not give us details of the specific languages compared in terms of their phonology, phonetics, morphology and syntax, these may be regarded as the main limitations of the study. In other words, the study brings to the fore the main differences and similarities obtaining amongst Ju/'hoansi, Naro and !Xóõ, but it does not cover the major linguistic categories in detail such as phonetics in Naro and phonology in Ju/'hoansi and !Xóõ.

4.1.2. Theoretical Framework

This study is basically descriptive and comparative. However, here and there, whenever deemed necessary, some aspects of Lexical Functional Grammar theory (LFG) will be used, particularly in sections 5.4.1.2 and 5.4.1.3 of chapter 5 where verbal extensions in Ju/'hoansi, Naro and !Xóõ are described. The study deals with extensions which involve derivations and are lexical in nature and this makes LFG to be more appropriate compared to other theories to deal with these issues.

In general terms, LFG can be viewed as a framework that arises in reaction to transformational approaches to syntactic phenomena. Indeed, compared with transformational theories, it can be said that one of the key features of LFG is that "transformational derivations are eliminated from the syntactic component of the grammar by means of an expanded lexical component" (Bresnan, 1982:6). Horn (1983b:340) reinforces this analysis when pointing out that "perhaps the most salient characteristic of LF grammars is the virtual elimination of syntactic movements".

LFG is a theory in which the lexical component and grammatical functions play a central role in grammatical analysis. The model of grammar proposed within this theory comprises two major components: lexical component or lexicon and postlexical component or syntax.

The lexical component includes word formation rules, responsible for morphological operations, and lexical transformations, which relate the functional structures of derived lexical items to those of the corresponding bases. The postlexical component, which includes two levels of analysis (functional structure and constituent structure), is the module in which words are combined into phrases.

Considering this model of grammar, three basic levels of structure are assumed in syntactic theory: an argument structure (a-structure), a functional structure (f-structure) and a constituent structure (c-structure). According to Bresnan and Moshi (1990), the a-structure represents the underlying organisation of argument rules. The f-structure represents the abstract syntactic functions of surface forms. The c-structure represents the surface forms as they are overtly expressed in morphosyntax. It is assumed that the three levels bear independent primitives and geometry and that the relations among them are captured in terms of principles of structural correspondence rather than derivation (Bresnan and Moshi, 1990; Mchombo, 1993).

Specifically, the LFG postulation of universal hierarchy of thematic roles ranging form agent to locative, from which verbs select thematic roles to build their predicate argument structure is explored to analyse verbal constructions in these languages (cf. Bresnan and Kanerva (1988), Mchombo (1992), Bresnan and Moshi (1990), Harford (1991, 1993), Givon (1984) and Kiparsky (1987)).

By and large, LFG can be viewed as a framework that arises in reaction to transformational approaches to the syntactic description of languages. Thus, one of the key features of LFG is that "transformational derivations are eliminated from the syntactic component of the grammar by means of an expanded lexical component" (Bresnan, 1982:6). Horn (1983b:340) seems to be of the same view when he observes that "perhaps the most salient characteristic of LF grammars is the virtual elimination of syntactic movements".

One important component that is linked with the semantic and grammatical relations is the thematic roles. They play a significant role as will become evident throughout this section. Apart from their arrangement in a hierarchy of significance, called the Thematic Hierarchy as will be shown later, they are important because they link lexical semantic and grammatical structures as already mentioned. The specific manner in which these two crucial levels link is illustrated later in section 4.1.2.1 where the researcher explores the formal operations and

predictions of Lexical Functional Grammar with respect to processes relating to the verbal constructions under discussion. Here, Lexical Functional Grammar is used as cited in; Bresnan (1982), Bresnan and Kanerva (1989), Bresnan and Moshi (1990, 1993), Bresnan and Kaplan (1982), Alsina and Mchombo (1990, 1993), Alsina (1992), Harford (1993) and Horrocks (1987) among others who subscribe to the theory.

Dowty (1991: 552) defines a thematic role as 'a set of entailments of a group of predicates with respect to one of the arguments of each.' Haegeman (1992: 49) defines thematic roles as 'the relation between verbs and their arguments'. Thematic roles or relations are also referred to in the literature as theta roles with the notation θ-roles (Haegeman 1992:49).

Haegeman (1992: 49) however cautions that while the notion of thematic roles is important for 'certain' syntactic processes, "the theory of thematic roles is still very sketchy." Dowty (1991) also shares the same sentiments as Haegeman (1992:49) on the issue. Dowty (1991: 548) expresses this sentiment when he argues that:

> *Although linguists seem to assume that linguistic theory should include a finite list ...- a universal canon of thematic roles – including the familiar members Agent, Patient, Goal, Source, Theme, .. no one that I know of has ever attempted to propose a complete list. There is disagreement even on the most familiar roles, e.g. .. Theme…*

Unlike Dowty (1991:552), Hageman (1992:44) does not however point out in specific terms what she refers to as those 'certain' syntactic processes for which she concedes that thematic structure is vital. The researcher assumes that the syntactic processes that she refers to may include such argument changing morpholexical operations involving passivization, reflexivization, reciplocalization, causativisation etc. Some complications that are associated with thematic roles are discussed later in this chapter where the said problems are related to LFG. In the next section, the researcher discusses the thematic roles.

In Lexical Functional Grammar there is no deep structure and surface structure. The Argument structure and Functional structure are related by means of morpho-lexical operations. To make this clear, consider the Setswana, Ju/'hoansi and !Xóõ examples below:

(17)   a.   fa> fi-w-a > Mpho 'gift'   (Setswana)

       b.   dcàá 'steal' > dcààkxàò 'thief'   (Ju/'hoansi)

       c.   ‖áii 'many' > ‖áiisà ' size'   (!Xóõ

Example (17a) above shows that from a passive morpheme we can derive a passivized nominalised verb *mpho* 'gift'. However, examples (17b and 17c) show that from the verbs *dcàá* 'steal' and ‖*áii* 'many', nominalised forms *dcààkxàò* 'thief'and ‖*áiisà* 'size' can be derived.

It has already been pointed out that thematic roles are the relationships of predicates and their arguments. Haegeman (1992: 44) likens the relationship that obtains between predicates and their arguments to a play script. Through this symbolism, the play script is the predicate, while the arguments are the roles that are assigned to different actors for the enactment of the play. And since there are semantically different types of predicates, it is therefore logical that the relationships that accrue from such a diversity yields equally different types of relationships. That divergence of semantic relationships accounts for the different thematic roles that will be discussed later in this chapter. The hierarchy that is given here has been suggested in some of the literature that has directly concerned itself with the theory that the researcher is using in this investigation. Although reference is here made to a cross-linguistic and cross-theoretic universal thematic hierarchy, the truth is that over the many years of linguistic research into this phenomenon, different writers have often come up with different versions of the same hierarchy. The following, Bresnan and Kanerva (1988), Mchombo (1992), Alsina and Mchombo (1990), Harford (1993), Givon (1984) and Kiparsky (1987) view the theme as being more prominent as compared to the locative. Some linguists such as Jackendoff (1972) and Foley and Van Valin (1984), as cited by Bresnan and Kanerva (1988: 28), place the locative at the same level as the goal/experiencer. By so doing, the former, Jackendoff (1972) place the locative at a position higher than that of theme/patient.

The version of the Universal Thematic Hierarchy used here is only a slight expansion of the one given by Bresnan and Kanerva (1988), Bresnan and Moshi (1990) and Alsina and Mchombo (1993). It is closest to Harford's (1991:102) in terms of its formulation. The major difference lies in the reversed positions between the motive and the locative.

Having related in brief the background to thematic roles and their organization, we will now provide the Thematic Hierarchy. Thematic relations are usually ranked in thematic hierarchies such as the one adopted in Lexical Mapping Theory:

(18) Thematic Hierarchy: *ag > ben > recip/exp > inst > th/pt > loc*

According to Bresnan and Moshi (1990), the notation '>' means 'the preceding is higher than' or 'is more prominent than', while the slash sign '/' indicates 'is at the same level as the thematic role. Therefore, where there is 'agent>beneficiary/maleficiary', on the one hand, it means that the agent is higher than the beneficiary /maleficiary thematic role while, on the other hand, beneficiary and maleficiary are viewed as enjoying equal status in the hierarchy. In some Bantu languages when, for example, there are two competing NPs for object status, the NP higher in the thematic hierarchy will be the one exhibiting primary object syntactic properties. Chichewa is an example of such a language. This is why it is regarded as a thematically driven language (Alsina, 1992).

In this theory arguments of a predicate in a-structures are assumed to be ordered   according to a universal hierarchy of semantic roles. The hypothesis assumed is that "thematic roles are hierarchically related to each other in such a way that, given any two roles in an argument structure, one will be more prominent than the other" (Alsina and Mchombo, 1993:24). Under this schema, an a-structure is conceived as consisting of "the lexical roles of a verb, their intrinsic syntactic classifications and an ordering that represents the relative prominence of the roles" (Bresnan and Moshi, 1990).

The examples below illustrate the thematic roles discussed in (18) above.

(19)　　a.　　│'a- 'give'　　　　　　　　　　　　(Ju/'hoansi)
　　　　　　　C-Structure　　NP　　　VP　　　PP
　　　　　　　F-Structure　　<SUBJ　OBJ　　OBLØ
　　　　　　　A-Structure　　ag　　　th/pt　　ben

　　　　b.　　!qháã 'give'　　　　　　　　　　　(!Xóõ)
　　　　　　　C-Structure　　NP　　　VP　　　PP
　　　　　　　F-Structure　　< SUBJ OBJ　　OBLØ
　　　　　　　A-Structure　　ag　　　　th/pt　　ben

　　　　c.　　kama 'give'　　　　　　　　　　　(Naro)
　　　　　　　C-Structure　　NP　　　　VP　　　PP
　　　　　　　F-Structure　　< SUBJ　OBJ　　　OBLØ
　　　　　　　A-Structure　　ag　　　　th/pt　　　ben

 The examples in (19a, 19b and 19c) indicate that the verb 'give' selects three arguments, namely the agent, theme and beneficiary.

d.　　bóò- 'see'　　　　　　　　　　　　(Naro)
　　　　　C-Structure　　NP　　　VP　　　PP
　　　　　F-Structure　　<SUBJ　OBJ　　OBLØ
　　　　　A-Structure　　ag　　　pt　　　ben/goal

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e.   ho 'see'   (Ju/'hoansi'
      C-Structure   NP   VP   PP
      F-Structure   <SUBJ OBJ   OBLØ
      A-Structure   ag   pt   ben/goal

f.   nâã 'see'   (!Xóõ)

In example (19d, 19e and 19f), the verb 'see' selects three arguments just like in examples (19a, 19b and 19c). It therefore selects the thematic roles of agent, patient and beneficiary/goal. The verb *bóò* 'see' selects the thematic roles of (ag, pt and ben) to build up its predicate argument structure. All these three structures run parallel to each other as shown in the example above and the thematic roles occur in the hierarchy mentioned above. The discussion will return to the mapping of argument structure to grammatical functions in section 4.1.2.1.

g.   < ag ben pt >

h.   *< pt ag ben >

i.   *< ben pt   ag >

The ordering that obtains within the structure of the Universal Thematic Hierarchy is fixed in that the verbs or predicators are not free to impose a different kind of ordering other than the one that conforms to that of the hierarchy. This means that if a predicate has, say, two arguments specified as part of its lexical entry, and it assigns the different arguments their specific roles, the Universal Thematic Hierarchy will accord syntactic prominence to the arguments in strict conformity with the set of hierarchy above. In actual application, what this means is that, given two or more thematic roles as specified in the predicate argument structure of a given verb, the higher or more prominent role according to the order shown on the Universal Thematic Hierarchy takes precedence over the lower role in the mapping between thematic roles and grammatical functions.

The thematic roles of a particular predicate are conventionally ordered in accordance with the provisions of the Hierarchy. For example, a predicate like *qhaa* 'give' (!Xóõ), comprises the following arguments; agent, beneficiary and patient. From this three-place predicate, there are three possible orderings in which the only correct ordering is (19g). The other renditions are unacceptable because they are in breach of the ordering of arguments as provided in the Thematic Hierarchy as it appears in (18) above.

When referring to the Universal Thematic Hierarchy, one notices that agent precedes patient which then comes further down in the Hierarchy than the beneficiary. In fact, the beneficiary is preceded by only one thematic role, the agent. The patient, on the other hand, comes about

five positions down from the beneficiary. It is evident therefore that the abstraction of roles associated with the predicate *qhaa* 'give' is incorrect in as far as they follow the ordering in (19h) and (19i). It is clear that the examples (19h) and (19i) go against the hierarchy and that is why they are incorrect.

The researcher agrees with Mchombo's (1993: 24) analysis that the 'thematic role structures of individual lexical items will contain a subset of these roles which will be ordered according to the thematic hierarchy'. LMT treats the provisions of the Universal Thematic Hierarchy as given and inviolable with regard to the positions of respective thematic roles and their mapping onto different grammatical functions.

The thematic roles to be discussed below include the agent, beneficiary, goal, experiencer, theme, locative, causer, cause etc. Hageman (1991: 49) defines agent as the participant that intentionally or volitionally initiates the action expressed by the verb. Spencer (199:190) conceives of the nature of the agent as being 'usually animate'. From a slightly different perspective, Dowty (1991: 572) defines the same argument as the participant whose existence is independent of the action expressed by the verb. On the other hand, Bresnan and Kanerva (1988: 30) describe the agent as the argument that causes or has control over the situation described by the verb. From the above, the researcher concludes that the agent is the major participant of any event structure. The agent does any one of the following: starts or ends an action, affects, alters, destroys or creates other participants named by the predicate in which it participates.

The examples below illustrate the above statements concerning the agent.

(20)   a.   Dshàúma n│óá márí <ag pt>   (Ju/'hoansi)
            girl   cook porridge
            'The girl is cooking some porridge'

       b.   Aisa   ncãa aqáían ‖à 'a <ag pt>   (Naro)
            mother pst   clothes wash (agent)
            'mother has washed the clothes'

       c.   Ta ‖aa qwann ba ‖*haatxaa* <ag pt>   (!Xóõ)
            The boy chop T/A wood
            'The boy is chopping wood'

In (20a, b and 20c) the NP *Dshàúma* (Ju/'hoansi) 'girl' has control over the cooking of the porridge, on the other hand the NP   *aisa* (Naro) 'mother' is the volitional instigator of the washing action and furthermore the NP ‖*aa* 'boy' (!Xóõ) is the intentional instigator of the chopping action.

The examples above show that the NP *márí* 'porridge' undergoes the cooking action, while the NP *xg'aa* 'clothes' undergoes the washing action and lastly the NP ‖*haatxaa* 'wood' experiences the chopping action. It is the participant that is radically affected by the action referred to by the predicate, *n│óá* 'cook', *agáían* 'wash', and *qwann* 'chop'. The above three NPs; *Dshàúma* (Ju/'hoansi) 'girl', *aisa* (Naro) 'mother' and ‖*aa* 'boy' (!Xóõ) are known as patients because they undergo a change of state expressed by the predicate. Polinsky (1994: 131) says of the patient, 'it is created/destroyed/dramatically changed in the course of the given event and is causally affected.' This statement is clearly supported by the actions undergone by the patients in the above examples, they are destroyed and changed.

In (20a, b and 20c), the NP *márí* 'porridge' undergoes a state of change as a result of being cooked by *Dshàúma* 'girl', the same thing applies to the NP *xg'aa* 'clothes' which undergoes a change of state as a result of being washed by *aisa* 'mother' and the NP ‖*haatxaa* 'wood' is also affected as a result of being chopped by ‖*aa* 'boy'. Note that all these NPs are affected and as such they are known as themes. A theme therefore is a participant or entity moved by an action expressed by the predicate. Spencer (199:190) defines it as the 'entity undergoing motion or in a certain state'. As Spencer (1991) points out, the theme and patient thematic roles are often conflated 'making this something of a default semantic role'. Bresnan and Kanerva (1989) define theme as the argument of which change of location or state is involved.

The use of the same examples to illustrate both the theme and the patient demonstrate that these two roles are closely related. These two thematic roles are sometimes used interchangeably (cf. Harford (1993), Alsina and Mchombo (1993) and Bresnan and Moshi (1990, 1993). This observation is given credence to by the fact that on the Thematic Hierarchy, both the theme and the patient are placed on the same level.

Consider the examples below.

(21)   a.   G≠hòà n≠ai !aàh párí   <ag exp>   (Ju/'hoansi)
              Dog   make run goat
              'The dog is making the goat run'

       b.   Cóá ba ncãa tsam cgoa xgamè   <ag exp>   (Naro)
              boy pgn pst stick   with beat
              'The boy has been beaten with a stick'

       c.   Qho ye   ken ba   ka aa   <ag exp>   (!Xóõ)
              Lady the pain part some part
              'The lady has some pain'

In example (21a), the goat experiences the pain of running caused by the dog. On the other hand; in (21b), the boy experiences the sensation of pain resulting from the stick's beating.

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Furthermore in (21c), the lady experiences some pain. The above examples show that someone/something undergoes some kind of pain. The people or things that experience some state are known as the experiencers.

Haegeman (1991: 50) therefore defines experiencer as the entity that experiences some [psychological] state. Her definition is conceptually different from Spencer's (1991) who defines the experiencer as a '(passive) recipient of a sensation or mental experience'.
Consider the examples that follow.

(22) a. Dà'ámá jàn │'a'n bá   kò màrì   <ag th/pt ben> (Ju/'hoansi)
          child   good give father part money
          'The good child gave his father money'

    b. xhárà ba ko xaiga ba xhárà màà   <ben>   (Naro)
         land pgn pst chief pgn plough for
         'The field was ploughed for the chief'

    c. Gustel xhama xen ‖qae   <ag ben>   (!Xóõ)
        Gustel buy   for mother
        'Gustel is buying for his mother'

    d. Neo o   rek-el-a   Tebogo   <ag ben>   (Setswana)
        1PN   sm buy-app-FV   1NP
        'Neo is buying for Tebogo'

In (22a), the NP *bá* 'father' is the beneficiary of the act of giving that is carried out by the child. On the other hand, in example (22b), the NP *xaiga* 'chief' benefits because of the ploughing that is done for him. In the case of L3, the NP ‖*qae* 'mother' in example (22c) is also a beneficiary because of the buying done by Gustel. In example (22d), the NP *Tebogo* is the beneficiary because of the buying done by *Neo*. The NPs in the examples above all benefit in one way or the other and they are called beneficiaries because they gain and/or benefit from the actions that are expressed by the predicates.

The beneficiary, as Perez (1983: 11) points out, is generally an animate entity. This may be so because animate entities often perform volitional acts that are bound to benefit (or in the case of a maleficiary, disbenefit) other animate participants. It is however also true that the beneficiary encodes other meanings not only limited to advantaging or benefiting other entities in the narrow sense of the word.

The examples below are different from the ones above in the fact that they have two meanings. The examples show that some of the animate entities are disadvantaged or get adversely affected by the actions referred to by the predicate. This is known as maleficiary**.** This thematic role is the semantic opposite of the beneficiary. Mabugu (2000: 109) defines it

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as the relation 'marked to the disbenefit/detriment of the recipient involved in the event being described.' Like the beneficiary, the maleficiary is also usually an animate entity for the same reasons advanced for the beneficiary earlier. It is often associated with a considerable degree of ambiguity in many languages. Consider the sentence below:

(23)   Ts'ãa-kg'ao ba ncãa nxaboan ais   di   ts′ãà <maleficiary>   (Naro)
         thief   pgn pst shoes   mother part steal
         'The thief has stolen mother's shoes'
         '?The thief has stolen shoes for mother.'

The two readings in example (23), though opposite in meaning are all correct and acceptable. The subject, who is the thief, suggests, in the context of discourse whether or not the intended interpretation is the first or second one. The first reading, which is also the intended one, is perhaps self-explanatory. The second reading captures a context in which a thief steals shoes from someone else and then proceeds to give them to mother, presumably as a gift.

Since the maleficiary and the beneficiary form semantic opposites, they are placed on the same level within the Thematic Hierarchy.

The examples that follow show the element of possession and this is normally referred to as a goal. This is the entity towards which the activity expressed by the predicate is directed. Dowty (1991: 559) defines the same role in a similar way when he describes it thus;

> *Normally the Goal is a person who ends up as possessor of the object*
> *at the end of the action.*

Spencer (1991: 190) defines goal as the 'end point of motion in concrete or abstract sense'.

To make this clear, consider example (24) .

(24)   a.   Damo │'an Kxao ko g≠hòà   <goal>   (Ju/'hoansi)
               Damo give Kxao T/A dog
               'Damo gave Kxao a dog'

        b.   Dxàe-coa   sa ncãa gas dim **ncam** khóè ba   máku <goal> (Naro)
               female-child pgn pst part part send person pgn gift
               'The lady sent her boyfriend a gift'

        c.   Qxouno hamanini xhama ka   asa tse xhou mwani <goal> (!Xóõ)
               the   visitors   buy   part part the gift girls
               'The visitors bought the girls a gift'

        d.   Lesedi o   fil-e   Thato ntsa   <goal>   Setswana
                1PN   sm give-PST 1PN 9-dog
               'Lesedi gave Thato a dog'

The NP *khóèba* 'boyfriend' is the goal in example (24b) insofar as the gift originates from *dxàe-coa* 'lady' and physically ends up in his possession. The same thing applies to Kxao and Thato who end up receiving a present of the *g≠hòà/ntsa* 'dog'. Similarly in (24c), *mwani*

'girls' receive a gift from the visitors. In Spencer's definition, (24a-24c) would satisfy the concrete end point of the "gifts" motion.

The goal is somewhat related to the beneficiary and its opposite, the maleficiary. If an action is designed to benefit someone by giving him/her an object for instance, it fits in well with Dowty's (1991: 559) analysis that the 'person … ends up as the possessor of the object at the end of the action.' It would however appear that the major difference between the two resides in the fact that a goal seems to be associated with a defined path through which the object passes as it goes to the goal whereas a beneficiary does not quite seem to have this component to it.

Among the thematic roles to be discussed is the source. It is the entity from which something is moved as a result of the action that is expressed by the predicate. Spencer (1991:190) defines source as the 'starting point of motion in concrete or abstract sense'. In (24b) the NP *dxàe-coa* 'lady' is the source from which the gift is sent to *khóèba* 'boyfriend'. The researcher is of the idea that the existence of a goal presupposes the existence of a source as necessary entities that demarcate the motion in terms of its starting and finishing points.

Consider the examples below.

(25)   a.   Ha kú ‖hae ho mtsá kò g│úí <location>   (Ju/hoansi)
              We prt rec see our part thoughts
              'We saw each other in our thoughts'

       b.   Gaa kham di   tc'oo q'oo koe hii goàq xg'ao <location> (Naro)
              part pn   part forest in   at tree pst chop
              'He was chopping the tree in the forest'

       c.   Pulute yan ka qau sa   ka   moraka   <location>   (!Xóõ)
              Goats take part have been part cattlepost
              'The goats have been taken to the cattlepost'

All the three examples above indicate the existence of a place/location. Location therefore is the place, concrete or abstract, in which the state or event expressed by the predicate is situated. Abstract location is represented by the locative, *xg'ae* 'in thought' in (25a) while concrete location is represented by the locative, *tc'oo* 'in the forest' in (25b) and *moraka* 'cattle post' in (25c) above.

In the examples (26a and 26b),│ *'áí* 'axe' and *nxõan* 'stones' are instruments. The instrument may be defined as the inanimate object employed to carry out the action referred to by the predicate.

(26) a. Mí bá ‖ohma !aìhn kò │'áí <instrument> (Ju/'hoansi)
          My father chop tree part axe
          'My father chopped the tree with an axe'

      b. Tshao-kg'ao ba ko xgàrisa tshào o nxõan cgoa <instrument>
          builder   pgn part kraal build part stones with (Naro)
          'The builder built a kraal with stones'

The study of causatives (cf. Polinsky 1994, Alsina 1992, Comrie 1981 & 1985, Alsina and Mchombo 1993) has yielded two significant thematic roles of causer and causee. These two roles are also very important in this study.

Polinsky (1994:131) defines the causer as the 'primary agent and most independent participant in a given situation.' What she refers to as 'a given situation' in this case must be a causative situation or event. If this is so, the complete definition of a causer will be as follows; a causer is the primary agent and most independent participant that initiates a causative event. Consider the following illustrations :

(27) a. G≠hòà n≠ai n≠haò n│hoàhn <causer>   (Ju/'hoansi)
          Dog cause fall cat
          'The dog causes the cat to fall'

      b. Papa ba ncãa kuru I ncãa ts'ãa-kg'oan ais di marian ts'ãa
          Father pgn pst make pgn pst thief   mother pgn money steal
          'Father has caused mother's money to be stolen by a thief' <causer> (Naro)

      c. Xhomate khobe ba x│hae ‖khobe teste <causer>   (!Xóõ)
          Xhomate want part make parents rich
          'Xhomate want to make his parents rich'

In (27b), the NP *ba* 'father' is the causer in that structure. The sense that he is, at least partly held responsible for the stealing of mother's money is non-contestable. Since the causer is defined in Polinsky's (1994: 131) definition as a 'primary agent' it follows that the causer serves only as a special case of an agent. It is also perhaps self-evident that *ba* 'father' is in Polinsky's (1994:131) words 'the most independent participant' because in the example given in (27b) all the other three participants, namely *marian* 'money', *ais* 'mother' and *kuru* 'thief' are affected by *ba's* 'father' actions. At the same time *ba* 'father' seems to be initiating the action that affects the other participants out of his own volition.

The thematic role of causee is, as indicated above, associated with constructions involving causativization. Polinsky (1994:131) defines causee as follows:

The causee is the agent by virtue of causing an event (causative of intransitive) or change of state in another participant (causative of transitive), but it lacks the relevant agentive property of volitional involvement in the event.

The NP *kuru* 'thief' in (27b) above is the causee. Going by Polinsky's (1994:131) definition of causee, it would not be acceptable in this case to say that the *kuru* 'thief' lacks the relevant agentive property of volitional involvement' in the stealing of mother's money. A more plausible explanation would be to say that first father created an opportunity that the thief exploited by volitionally deciding to steal mother's money. Without the volitional involvement aspect in (27b) the alternative interpretation would be to say that father took the money from mother and then proceeded to force the crook to steal it. Such an interpretation is highly untenable, at least in terms of the intended meaning.

Thematic roles, as Dowty (1991:559) and Polinsky (1994:131) point out, are non-discrete. They are not the primitives of lexical semantic theory. This means that they are decomposable. This is in fact what Dowty's (1991) theory of proto-roles basically advocates as well as seeks to demonstrate. Polinsky (1994: 131) however concedes that although thematic roles are non-discrete, they nonetheless 'seem to better reflect the reality of the verbal lexicon, the clarity of analysis requires that roles be postulated as discrete entities.' Owing to this non-discrete characteristic of thematic roles one is bound to have cases in which claim for membership of certain roles to specific role-types may in some cases be uncertain. The uncertainty may manifest through the blurring of roles. This for instance may be said of thematic roles such as the agent versus the causer as well as the beneficiary versus the goal. Thematic roles are associated with grammatical functions as will be seen in the next discussion. It is instructive that the researcher first demonstrates, in brief, an intuitive association between some thematic roles and grammatical functions.

4.1.2.1. Thematic Roles and Grammatical Functions

Below a discussion on the central place of a-structure in the current study is discussed. Consider the three sentences below, where, (28b and 28c) have transitive predicates while (28 a) has an intransitive verb.

(28)   a.   Haghu ba ncãa x'óó   SUBJ   (Naro)
            Dog   pgn pst die
            'The dog has died'
            A-Structure   <pt>

b.	Da'abi n│oa ti	SUBJ	OBJ	(Ju/'hoansi)
	children boil tea			
	'The children have boiled the tea'.			
	A-Structure	<ag	th>	
c.	Taqae │ham qwa xaà	SUBJ	OBJ	(!Xóõ)
	woman kindle pst fire			
	'The woman has kindled the fire'			
	A-Structure	<ag	pt>	

These three sentences (28 a, b and 28c) above have each a predicate and arguments specified as part of its lexical entries.

The predicates' a-structures are represented in diagrammatic form in the Figure 10 below based on Matambirofa (2003:68).

A-structure →

PREDICATE	ARG. 1.	ARG. 2.
n│oa	*da'abi* **[agent]**	*ti* **[theme]**
'boil;	'children'	'tea'
│ham	*taqae* **[agent]**	*xaà* **[patient]**
'kindle'	'woman'	'fire'
x'óó	*haghu* **[patient]**	
'die'	**'**dog'	

Figure 10: Argument Structure

Figure 11 provides a schema which indicates the syntactic relations that obtains between the verbs and their arguments on the basis of traditional and intuitive understanding of their relation.

F-structure →

VERB	FUNC 1.	FUNC 2.
n│oa	*da'abi* **[subject]**	*ti* **[object]**
'boil'	'children'	'tea'
│ham	*taqae* **[subject]**	*xaà* **[object]**
'kindle'	'woman'	'fire'
x'óó	*haghu* **[subject]**	
'die'	'dog'	

Figure 11: Functional Structure

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Figures 10 and 11 show some systematic correspondence that characterizes the intuitive relationship that is between a-structure and f-structure. Functional structure represents relations that are entered into by different syntactic categories in a clause or sentence. They are constitutive of the following class of grammatical relations; subject, object and oblique.

In Figure 12 below, the Figures 10 and 11 are collated in order to illustrate the intuitive link that obtains between a-structure and f-structure. This figure is also based on Matambirofa (2003:69).

PREDICATE	AGR. 1	ARG. 2
n│oa'boil'	da'abi[**agent**] ←	ti [**patient**] ←
│ham	taqae [a**gent**] ←	xaà[**theme**] ←
x'óó	haghu [**patient**]	

VERB	GRAMM. REL. 1	GRAMM. REL. 2.
n│oa	da'abi [**subject**] ←	ti [**object**] ←
│ham	taqae [**subject**] ←	xaà [**object**]
x'óó	haghu [**subject**]	

A-Structure
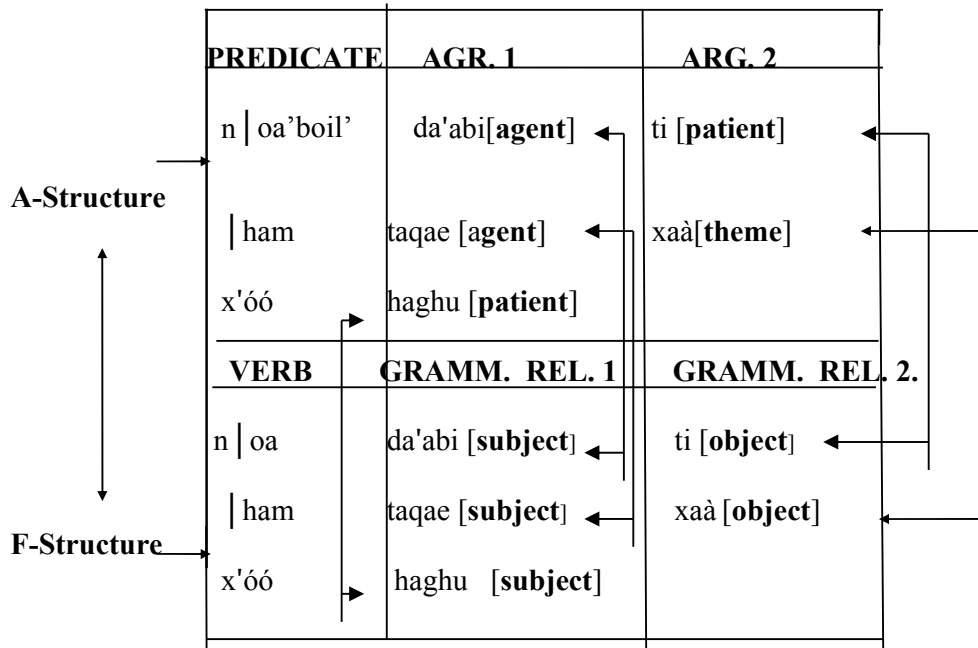
F-Structure

Figure 12: Linking A-structure and F-structure

As can be seen in Figure 12 above, a-structure is related to f-structure. The agent is associated with the subject function and the patient/theme is associated with the object function (if there is an agent). Otherwise the patient/theme is associated with the subject function. It must however be noted from the outset that these general correspondences must not be taken as true of all predicates. Depending on the semantics of the verb, what may be encoded grammatically as the subject can be a theme, locative, patient or some such argument or thematic role. This is what Jackendoff (1990: 49) means when he points out that '…syntactic subjects can hold a variety of different thematic roles.' What is true in this regard for the subject holds true for the object as well. A syntactic object can be a theme, goal, or patient, although the correspondences shown in Figure 12 generally and intuitively hold.

A-structure participants such as agent, patient, theme, beneficiary, instrument and locative among others have been already discussed. This intuitive association between the arguments of predicates and functional notions of subject and object demand that the researcher formally investigate the nature of this relationship. There is need to examine a methodology through which these elements may be systematically linked together. In the above sections, the thematic roles were defined and discussed at length. Figures 10- 11 have shown that, both intuitively and canonically, the agent is associated with the subject function while the patient/theme is associated with the object relation.

4.2. Summary

Chapter 4, section 4.1.1, provided a detailed discussion on the data collection methods as well as the locations in which Ju/'hoansi, Naro and !Xóõ which are the consideration of this study are spoken. Section 4.1.1 looked at the challenges to the data collection exercise. On the other hand, section 4.1.1.6 looked at the limitations of the study. Furthermore, section 4.1.2 looked at the theoretical framework. LFG proves to be more appealing compared to other syntactic theories because the study deals with constructions that involve derivations which are lexical in nature. The aspects of LFG theory (thematic roles) that are going to be used in the languages under consideration were discussed at length. In this chapter it has been shown that some systematic correspondence characterizes the intuitive relationship that is between a-structure and f-structure. Depending on the semantics of the verb, what may be encoded grammatically as the subject can be a theme, locative, patient or some such argument or thematic role. In what follows in chapter 5, the noun class markers, tense and aspect markers and verbal extensions are discussed.

5.1.   Introduction

Chapter 4 focused on the methodology, the research design, data collection and the theoretical framework. This chapter describes the verb complex in Northern, Central and Southern Khoesan, focusing on Ju/'hoansi, Naro and !Xóõ. It has nine sections. Section 5.1.1.1 presents the noun classes in Ju/'hoansi whereas section 5.1.1.2 looks at the number category. Section 5.1.2 deals with tense and aspect while section 5.1.2.1 looks at the use of adverbs to show tense and aspect. Furthermore, section 5.1.2.2 is devoted to the present tense, 5.1.2.3 deals with the habitual tense, section 5.1.2.4 looks at the past tense and section 5.1.2.5 presents the future. Lastly, section 5.1.2.6 provides the summary.

As already indicated, this chapter looks at the verb complex of the three languages. It should be noted that most of the scholars who have worked on Ju/'hoansi and Naro (cf. Snyman 1970, Dickens 1994, 2005, Visser 1998, 2001), claim that these languages have noun classes but there is no evidence to sustain such a claim since there is no agreement showing on the governing noun. The chapter starts by discussing the noun classes, tense and aspect markers and lastly the verbal extensions. The grounds on which the noun classes are formulated in the three languages differs as will be seen later in the chapter. Furthermore, nouns that do not take any of the prefixes found in a particular language are regarded as irregular and there are some classes that contain only the singulars while others contain only the plurals. Ju│'hoansi and !Xóõ nouns are categorized according to five sets of pronouns used to refer to them whereas in Naro nouns are categorized according to grammatical and natural gender. The verb complex is dominated by verbs and verbs select nouns as subjects and objects. Subjects and objects can be replaced by pronouns given a proper discourse. These will be discussed in detail later in the chapter. In what follows each language is discussed separately, Ju/'hoansi being discussed first.

5.1.1.   JU/'HOANSI

5.1.1.1.   Noun Classes

As already mentioned, some scholars who have worked on this language use pronouns as noun classes. As mentioned earlier in section 3.1.2.1, Ju/'hoansi nouns are categorized according to five sets of third person pronouns used to refer to them. In other words, there are five noun classes in Ju/'hoansi. Nouns referring to human beings are in class 1 (pronouns). However, nouns other than those referring to human

beings have different sets of pronouns. Unfortunately it is not always possible to predict the class of a noun by its meaning, so the class must be learnt when the noun itself is learnt (Dickens 2005:31).

The table below taken from Janson and Anderson (1997:148) shows the personal pronouns found in Ju/'hoansi.

	Singular	**Plural**
First person	mi- I, me, my	e/e!a,m/m!a- we, us, our
Second person	a- you, your	i / i!a-we, us, our
Third person	ha-he/him/his/she/her ha ha hi ka	si-they/them/their hi ha hi ka

Table 11: Ju/'hoansi nouns classes

Class 1

Nouns belonging to this class refer to humans as indicated by the pronouns highlighted in the examples below.

In this class, nouns like *da ʼàma* 'child', *dshau* 'woman', *bá* 'father', *q‖a'qsín* 'aunts', *básín* 'fathers', *taqèsín* 'mothers' etc. can be replaced by the pronouns *ha* in the singular and *sín* in the plural.

(44)   a**.**   **ha** – he/his/him/she/her.

b.   **sín** – they/ them/their.

The class prefix *ha* refers to singular human nouns as shown in (44a) above while s*ín* refers to plural nouns as indicated in (44b). Ju/'hoansi pronouns do not change their form according to their grammatical function; that is, whether they function as subjects or objects. For an example, *mi* corresponds to 'I' and 'me'.

The examples below show the usage of the noun replacing it with a pronoun. In examples given in (44), *ha* refers to the third person singular (3sg), and *sín* refers to the third person plural.

Examples

(45) a. ǀam kxoa **taqè**
            ǀam look 1-mother
          'ǀam looks for the mother'

      b.   **ha** kxoa **ha**
          she look 3sg
          'she looks for her'

      c.   **Bá**   nǁaq'àrà ≠xanù
          Father read   book
          'The father reads the book'

      d.   **Ha**   nǁaq'àrà ha
          He   read   it
          'He reads it'

Example (45a) shows usage of nouns in a sentence while (45b) shows replacement of those nouns with singular class 1 pronouns *ha* 'she and her'. In example (45a and 45c) the nouns *taqè* 'mother' and *bá* 'father' have been replaced with the pronouns *ha* 'her and him' in (45b and 45d).

(46) a. Mi kxoa **taqèsín**
          1sg look 1-mothers
          'I look for the mothers'

      b. Mi kxoa **sí**
          1sg look   1-them
          'I look for them'

      c. **Básín** nǁaq'àrà ≠xanù
          fathers read   book
          'The fathers read the book'

      d. **Sí** nǁaq'àrà ≠xanù
          they read   book
          'They read the book'

Examples (46a and 46c) indicate the usage of class 1 plural. In example (46a) the plural noun *taqèsín* 'mothers' has been replaced by the pronoun *si* 'them' and in (46c) *Básín* 'fathers' has been replaced by the plural pronoun *si* 'they'.

Class 2

Class 2, contains animals, birds, reptiles, insects and a few nouns referring to race/nationality.

Class 1 and 2 share the pronoun *ha*. The context and the semantics help distinguish the two classes as indicated by examples in (48). Nouns such as *!xó* 'elephant/s', n!haì 'lion/s', *tzàmà* 'bird', ǀàò 'buffalo/s', *gúmí* 'cow/cattle' etc are replaced by the pronouns *ha* in the singular and *hi* in the plural.

(47) a.   **ha** – he/ him/ his /she/ her/ it/ its

   b.   **hì** – they/ them/ their

Class 2 singular is reperesented by *ha* while its plural is *hi*.

Examples

(48) a.   **n!haì** gù   gúmi
            2-lion caught 2-cow
            'The lion caught the cow'

   b.   **ha**   gù   gúmi
            2-it   caught   2-cow
            'It caught the cow'

   c.   **Gòbá**   ‖háí **n!haì** !xúí
            2-Blackman pull 2-lion tail
            'The Blackman pulled the lion's tail'

   d.   **ha** ‖háí **ha** !xúí
            2-he pull 2-its tail
            'He pulled its tail'

In example (48a and 48c) the nouns *n!haì* 'lion', *gòbá* 'blackman' and *n!haì* 'lion' have been replaced with the pronoun *ha* 'it, its and he' in (48b and 48d).

(49)   a.   Tamahisi ho **!xó**
                2-Hereros found 2-elephants
                'The Hereros found the elephants

       b.   Tamahisi ho   **hì**
                2-Hereros found 2-them
                'The Hereros found them'

       c.   Gòbá   ‖háí **n!haì** !xúísì
                2-Blackman pull 2- lions   tails
                'The Blackman pulled the lions'tails

       d.   ha ‖háí **hi**   !xúísì
                2- he pull 2-their tails
                'He pulled their tails'

Furthermore, the nouns *!xó* 'elephants' and *n!haì* 'lions' in (49a and 49c) have been replaced with the pronoun *hì* 'them' in (49b) and 'their' in (49d) . The examples clearly indicate that *ha* is singular while *hi* is plural.

Class 3

The nouns denoting articles of everyday use, most plants, as well as the food products that come from them and a few nouns denoting miscellaneous objects belong to this class.

(50)   a. **ha**- it/ its

        b. **ha** – they/ them / their

Both the singular and the plural are represented by *ha.*

Examples

(51)   a.   Damo 'm g!hoo !'uni
                Damo ate sour   3- plum
                'Damo ate a sour plum'

       b.   Damo 'm **ha**
                1sg   ate 3-it
                'Damo ate it'

       c.   n!oh   gèà tafere   │hó
                3-orange is 3-table surface
                'The orange is on the table's surface'

       d.   **H**a gèà **ha** |hó
                it   is its surface
                'It is on its surface'

In example (51a and 51 c) the nouns *!'uni* 'plum', *n!oh* 'orange' and *tafere* 'table' have been replaced with the pronoun *ha* 'it and its' in examples (51b and 51d).

(52)   a.   **Utòsì** |ú ‖kòà
                3-cars never work
                'The cars never work'

       b.   **Ha** |ú ‖kòà
                3-they never work
                'They never work'

       c.   **n!ohsì**   gèà **tafere** |hó
                3-oranges are 3-table surface
                'The oranges are on the table's surface'

       d.   **Ha** gèà **ha** |hó
                it   are 3-its surface
                'They are on its surface'

Like the examples in class 2, examples in this class show usage of the noun in a sentence and replacement of that noun with a pronoun. Similarly, in examples (52a and 52c), the nouns *utòsì* 'cars' and *n!ohsì* 'oranges' have been replaced with the pronoun *ha* 'they' in examples (52b and 52d). No difference is made between singular and plural pronouns of this class as shown in examples (51b and 51d and 52b and 52d).

The examples above indicate that in the third person singular pronoun, the sex of the person referred to is not shown in Ju/'hoansi as *ha* corresponds to the pronouns: he, him, his, she and her.

Class 4

This is the smallest noun class. Many objects belonging to this class are characterized by length (e.g. *n!àma* 'road', *g{ùí* 'springhare hooking pole'. As in class 3, there is no formal singular/plural distinction in the pronouns. Note the correspondence of *hì* with the plural of class 2 and the context and the semantics help distinguish the two as class 2 refers to animals while class 4 refers to inanimate objects. Nouns such as *n!àma* 'road', *n!àmasì* 'roads', *dà'ásì* 'fires' etc are replaced by the pronoun *hi* in both the singular and the plural.

(53)   a**. hì** – it/it's

          b. **hì** – they/ them/ their

There is no formal distinction between singular and plural pronouns since they are both represented by *hì.* The examples below show the usage of nouns and their replacement with pronouns.

Examples

(54) a.   dà'ábí |óá   ho   **n!àmà**
              1-children not   find   4-road
              'The children did not find the road'

      b.   dà'ábí |óá ho **hì**
              1-children not find 4-it
              'The children did not find it'

      c.   **dà'á** kú !àò
               4-fire is die
               'The fire is dying'

      d.   **Hi** kú !àò
              4-it   is die
              'It is dying'

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As seen in classes 1, 2 and 3, the nouns used in the sentences above have been replaced by the pronouns. The pronoun *hì* 'it' in examples (54b and 54d) is substituted for the nouns *n!àmà* 'road' and *dà'á* 'fire' in examples (54a and 54c).

(55) a.   dà'ábí |óá   ho **n!àmàsì**
          1-children not   find   4-roads
          'The children did not find the roads'

    b.   dà'ábí |óá ho **hì**
          1-children not find 4-them
          'The children did not find them'

    c.   **dà'àsì** kú !àò
          4-fires are die
          'The fires are dying'

    d.   **hì**   kú !àò
          4-they are dying
          'They are dying'

Likewise, the pronoun *hi* 'them' in (55b) and 'they' in (55d) were used instead of the nouns *n!àmàsì* 'roads' and *dà'àsì* 'fires' in (55a and 55c).

Class 5

The names of the various body parts belong to this class. Nouns such as *!óm* 'leg', *g|a'así* 'eyes', etc are replaced by the pronoun *ká* both in the singular and in the plural.

(56)   a. **ká –** it/it's

          b. **ká –** they/them/their

Class 5 singular is represented by the pronoun *ká* as well as the plural.

Like in the other classes, there is no formal singular/plural distinction made.

Examples

(57) a.   Mi **g|a'a** ku ‖'an
          1sg 5-eye is   hurt
          'My eye is hurting'

    b.   **Ká**   kú ‖'an
          5-it   is hurt
          'It is hurting'

    c.   mi **!óm** ce tè   khúí   (Dickens 2005:68)
          my 5-leg is also painful
          'My leg is also painful'

    d.   **ká**   ce tè   khúí
          5-it is also painful
          'It is also painfull '

The noun *g/a'a* 'eye' and *!óm* 'leg' in examples (57a and 57c) have been substituted by the pronoun *ká* 'it' in examples (57b and 57d).

(58) a. Mi **g|a'asì** ku ‖'an
          1sg 5-eyes   are hurt
          'My eyes are hurting'

      b. **Ká   tsàn** kú ‖'an
          5-they both are hurt
          'They are (both) hurting'

      c. mi **!ómsì** ce tè   khúí   (Dickens 2005:68)
          my 5-legs are also painful
          'My leg is also painful'

      d. **ká**   ce tè   khúí
          5-they   are also painful
          'They are also painfull'

Inn the examples above, the pronoun *ká* was used instead of the noun *g|a'así* 'eyes' in (58a). On the other hand, the noun *!ómsí* ' legs' has been replaced by the pronoun *ká* 'they' in (58d).

The general observation about Ju/'hoansi pronouns is that, the pronouns differ according to whether they refer to one individual (singular), or more than two individuals (plural). The first person dual and plural pronouns (those corresponding to English 'we', 'us' and 'our') differ further according to whether the addressee is included or excluded in what the speaker is saying. Consider the following examples.

(59) a. m!á 'm !há
          1-we eat meat
          'We(including the person addressed) eat meat'

      b.   e!á 'm !há
          1-we aet meat
          'We (excluding the person addressed) eat meat'

In the above examples the nouns were substituted by the pronouns in both the singular and plural usage. The noun series assuming the pronouns *ha* (singular) *–si* (plural) consists of nouns denoting people. On the other hand, the noun series assuming the pronouns *ha* (singular) *–hi* (plural) contains nouns denoting animals, birds, reptiles, insects and a few nouns indicating miscellaneous objects. However, those nouns denoting things in everyday use, most plants and a few nouns denoting miscellaneous objects assume the pronouns *ha* (singular) *–ha* (plural). Furthermore, miscellaneous nouns assume the pronouns *hi* (singular) *–hi* (plural). Lastly, the names of the various body parts usually assume the pronouns *ka* (singular) *–ka* (plural).

5.1.1.2.   **Number Cateogory**

The plural formation is divided into the regular plurals, irregular plurals and the neutral plurals. It is usually not possible to predict how the plural of a noun will be formed from the noun itself.

5.1.1.3.   **Regular Plurals**

The Suffix –sì

The most common way of making a noun plural is to suffix –sì. In other words, nouns denoting some plants and nearly all things form their plurals by the suffixing of a plural morpheme –sì.

(60)   a.   Tjù 'house'   tjù**sì**   'houses'

         b.   Útò   'car'   Útò**sì**   'cars

         c.   !a' o   'leopard'   !a' o**sì**   'leopards'

         d.   n!ama 'road'   n!ama**si**   'roads'

In example (60a), the word *tjù* 'house' becomes *tjùsì* **'**houses' after the addition of the plural morpheme – *sì.* The same applies to examples (60b, 60c and 60d).

The usual way to form the plural of kinship terms is to suffix the plural morpheme –*sín.*

         e.   bá   'father'   ba**sín**   'fathers'

         f.   taqè   'mother'   Taqè**sín**   'mothers'

         g.   g‖àq   'aunt'   g‖àq**sín**   'aunts'

         h.   tsu   'uncle'   tsu**sín**   'uncles'

         I.   !wi   'sister'   !wi**sín**   'sisters'

Examples (60e to 60i) conform to the rule of formation of kinship plurals since all of them take the suffix –*sín* to mark plural. Thus *bá* 'father' in (60e) becomes *basín* 'fathers', *g‖àq* 'aunt' in (60g) changes to *g‖àqsín* 'aunts' and so forth.

The word *dshaàú* (woman) which functions as an ordinary noun and a kinship term (wife) takes the plural –*sì* and not *sín,* that is *dshaàúsì* 'women'.

Plural Suffix –mhí

Most nouns which take the suffix –*mhi* are diminutives; that is those nouns which denote smallness or despise objects.

Diminutives, which in the singular always end in the diminutive suffix –*mà*, change this to –*mhí* in the plural in non-kinship nouns as shown in examples that follow.

(61)	a.	!xómà	'elephant calf'	!xóm**hí**	'elephant calves'
	b.	g{húínmà	'puppy'	g{húínm**hí**	'puppies'
	c.	dshàúmà	'girl'	dshàúm**hí**	'small girls'
	d.	≠'aama	'snake'	≠'aam**hí**	'small snakes'
	e.	ts'ama	'bird'	ts'am**hí**	' small birds'

It looks like this suffix only applies to animate objects and mostly animals. Consider *≠'aama* 'snake'- *≠'aamhí* 'snakes' in (61d) and *ts'ama* 'bird'- *ts'amhí* 'birds' in (61e). There are a few nouns ending in –*mà* which do not change in the plural. These nouns probably had an original diminutive significance which now has been lost e.g. *tzàmà* 'bird/birds.

5.1.1.4.   Irregular Plurals

A number of nouns have completely irregular plurals.

(62)	a.	!'hoa'n	'man'	n‖aqè	'men'
	b.	dà'ámá	'child'	dà'ábí	'children'
	c.	g!oo	'bull'	n‖ae	'bulls'

5.1.1.5.   The Neutral Plurals

Many nouns, especially the names of animals and plant foods show no change in the plural. All the nouns below can be used to denote both singular and plural. As already mentioned in section 5.1.1.2 under classes 2 and 4, most nouns that refer to animals and plant food show no change in the plural and the context and the semantics help determine whether the noun is singular or plural.

(63)	a.	!xó	elephant/elephants
	b.	n!haì	lion/ lions
	c.	n|a'ng	raisin/ raisins
	d.	|àò	buffalo / buffaloes
	e.	n‖obesa	chameleon/ chameleons
	f.	kherekheresa	sweet/ sweets
	g.	‖'ei	collection/collections

Most of the characteristics of gender are missing in Ju/'hoansi. In other words, the noun class system in Ju/ʾhoansi is based on five noun classes none of which correspond to natural gender. There are no class markers on nouns in Ju/'hoansi. The data shows that this language has no suffix in the singular and not even in the plural is

a suffix obligatory. Alternatively, it can be said that some nouns take an empty suffix in the plural. There are also some noun stems with irregular forms in the plural.

5.1.2. Tense and Aspect

Comrie (1976:3) identifies both tense and aspect as linguistic categories associated with distinctions of time. However, tense is specifically defined as a category which relates the time of a situation referred to or, to the time of speaking, whereas aspect is defined as 'different ways of viewing the internal temporal constituency of a situation' (Comrie 1976: 3). The researcher thinks that this definition implies that aspect involves any grammatical device which serves to establish reference to one particular phase of a temporally complex episode. On the other hand, Chomsky (1965) and the Standard TG Grammar in general has tense as an obligatory expansion of the node auxiliary and its leftmost member. Huddlestone (1969) does not envisage tense belonging to the whole verbal group or phrase and instead treats tense as a property of a smaller unit, the verb. A grammarian instinctively feels that the language he or she is dealing with should have ways to express the past, present and the future of the events or happenings. The problem which faces a grammarian then, is to define the nature of the grammatical sketch that carries tense, e.g. an English grammarian who believes that only the verb proper can express tense relations will find it difficult to call tenses those forms used to express future. Aware of this ambiguous situation in which he finds himself, Jerspersen (1924:1) asserts that:

> *The English verb has only two tenses proper, distinguished by the form itself,*
> *namely the present and the preterit.*

While tense is concerned with time relations, that is, relating the time of the action expressed by the verb, to some other time, usually to the moment of speaking, aspect deals with the manner in which verbal action is experienced in terms of progression or completion. In other words, aspect is concerned with the duration of an action, complete or incomplete, perfective or imperfective. In most African languages, aspect is marked by verbal suffixes. Each of these verbal suffixes express the manner in which the action inherent in the relevant verb is experienced. In the Khoesan verb, the time of the action and the aspect of the action can be indicated by one form i.e. the present tense also expresses habitual action; similarly the perfect tense also expresses a state in which a person finds himself or herself.. The term tense will here be so employed to include TA markers.

This section is to explore the types of tense found in the languages under study, how it is marked and the positions in which the morphemes for marking the tense occur. The Khoesan tense-aspect system may thus be viewed as having two points of time reference. These are the day of the utterance (today) and the specific time of the utterance (now or the present moment). Taking 'today' as the reference time, any event taking place before today is past and any event occurring after today is the future. The following are some of the tenses found in Khoesan; present, habitual, past, future and perfect.

In Ju/'hoansi, the circumstance in which a sentence is spoken often determines it's tense, and the verb itself, is never inflected for time e.g. *ha úá Qangwa* 'he goes to Qangwa', could also be translated in the past or future as, 'he went (has gone) to Qangwa', or 'he will go to Qangwa', depending on the context. Tense is often indicated by a temporal adverb and not marked overtly. This section has six subsections. Section 5.1.2 looks at tense marking by the use of adverbs. On the other hand, section 5.1.2.2 is devoted to the present tense whereas section 5.1.2.3 deals with the habitual. Furthermore, section 5.1.2.4 looks at the past tense while section 5.1.2.5 deals with the future . Lastly, section 5.1.2.6 presents the summary.

5.1.2.1.   Adverbs

Adverbs of time may also be used to express tense of a sentence as the examples below indicate.

(64) a. |àmà hè 'today' (present), goàq≠'a'n 'yesterday' (past) and n!homà 'tomorrow' (future).

       b.   Ha |**ámà hè** úá   Qangwa
               3sg present   go Qangwa
               'He goes to Qangwa today'

       c.   Ha **goàq≠'a'n** úá   Qangwa
               3sg pst   go Qangwa
               'He went to Qangwa yesterday'

       d.   Ha **n!homà**   úá Qangwa
               3sg future   go Qangwa
               'He will go to Qangwa tomorrow'

Example (64b) shows the use of the adverb │*àmà hè* 'today' to express present tense. On the other hand example (64c) indicates the use of the adverb *goàq ≠'a'n* 'yesterday' to mark past tense. In addition (64c) shows how the adverb *n!homà* 'tomorrow' can be used to show future tense.

A common position of such adverbs is between the subject and the verb of a sentence, as shown above, but placing the adverb at the beginning of the sentence is also possible as shown in the example below.

    e. |amà hè ha úá Qaqa
            present 3sg go Qaqa
            'Today he goes to Qaqa'

The examples above clearly show that tense comes before the verb.

5.1.2.2.   Present

It is a tense which typically relates the time of an action or state to the present moment in time.

    f.   Ha **ká kú**   úá Qangwa
          He-now-hab-go-Qangwa
          'He is going to Qangwa now'

    g.   Damo **ká** ´m !há ‖**à´íkè**
          Damo-is-eat-meat-today
          'Damo is eating meat today'

    h.   Aíá   **ká** tsíá **n!úíàhè**
          Mother-is-come-this month
          'My mother is coming this month'

The present tense is marked by the use of the morpheme *ká*. As for its positions in the verb complex, it occurs before the verb. In example (64f) it appears before the verb *úá* 'go', while in (64g) it occurs before the verb *´m* 'eat'. On the other hand, in example (64h) the present tense marker *ká* comes before the verb *tsíá* 'come'. The examples above indicate that the present tense marker is able to co-occur with the present temporal adverbials.

5.1.2.3.   Habitual TA markers

The imperfective particle *kú* is used preceding a verb to show that an action is continuous or habitual or unfinished.

    i.   │am waqnsì Damo **kú** úá Qanggwa
          day all   Damo hab go Qangwa
          'Everyday Damo goes to Qangwa'

    j.   n!hai   **kú** !aqea g|u
          2-lions hab hunt night
          'Lions (habitually) hunt at night'

    k.   │am waqnsì   ha **kú** úá Shakawe
          day all   1-he hab go Shakawe
          'He used to go to Shakawe everyday'

l.   Xixae ‖à'íkè   kú úá Qangwa
        Xixae nowadays hab go Qangwa
        'Xixae nowadays goes to Qangwa'

The morpheme *kú* comes before the verb in all the examples above to show that the action is continous. In example (64j) it comes before the verb *!aqea* 'hunt' whereas in (64l) it appears before the verb *úá* 'go'. Like the present tense marker, the habitual marker also co-occurs with the present temporal adverbials as indicated in the examples above.

5.1.2.4.   Past

This is the form of a verb which is usually used to show that the act or state described by the verb occurred at a time before the present.

(65)   a**.**   **goàq≠'a'n**   ha **koh** ho da'àmà
        yesterday   1-he   pst find 1-child
        'Yesterday he found the child'

        b.   Damo **goàq**   **koh** úá Qaqa
                 Damo- longago- pst-go-Qaqa
                'Damo used to go to Qaqa long ago

        c.   Xixae **n!úíàtòànhè koh** úá Qaqa
                Xixae-last month-   pst- go-Qaqa
                Xixae went to Qaqa last month'

        d.   **goàq≠'an** ha **koh** !hún gùú
                 yesterday 1-he   pst find 2-sheep
                'Yesterday he killed the sheep'

The past tense occurs before the verb as indicated by the examples above and it is marked by *koh*. In example (65a) *koh* appears before the verb *ho* 'find' while in (65b) it comes before the verb *úá* 'chop'**.** Furthermore, in example (65d), it comes before the verb *!hún* 'find'. As indicated in the present and the habitual tense markers, the past tense marker also has the possibility to co-occur with the past temporal adverbials as shown in the examples above.

5.1.2.5.   Future

This is a tense form used to indicate that the event described by a verb will take place at a later stage or time.

        e.   Xixae **ku** du ka   ‖'ámá 'msi   **n!homà**
                Xixae - fut -do -part - buy - food - tomorrow
                 ' Xixae will buy food tomorrow'

f. Ha **n!úíà!ʼànhè ku** úá Shakawe
    She-next month-fut-go-Shakawe
    'She will be going to Shakawe next month'

The future is marked by -*ku*. As for its positions in the verb complex, it also comes before the verb like in the present and in the past. Thus, in example (65e) it comes before the verb ‖ *ámá* 'buy'as well as before the verb *úá* 'go' in (65 f). The future markers also can co-occur with the future temporal adverbials.

The examples above show that *ka* **,** *koh* and *ku* are placed before the verb.

5.1.2.6. Summary

There are five noun classes in Ju/'hoansi. Class 1 is represented by the pronouns *ha* (singular) –*si* (plural) and consists of nouns denoting people. On the other hand, the noun series assuming the pronouns *ha* (singular) –*hi* (plural) represent class 2 and contains nouns denoting animals, birds, reptiles, insects and a few nouns indicating miscellaneous objects. However, class 3 is shown by the pronouns *ha* (singular) –*ha* (plural). Furthermore, miscellaneous nouns assume the pronouns *hi* (singular) –*hi* (plural) and they represent class 4. Lastly, class 5 is represented by the pronouns *ka* (singular) –*ka* (plural) which entails the names of the various body parts. As for the plural formation, it is divided into three parts; thus the regular plurals, irregular plurals and the neutral plural. Futhermore, regular plurals are marked by the suffixes –*sì, sín* and –*mhi*. All the tense markers (present, past and future) discussed above occur before the verb. The temporal adverbials can co-occur with the relevant tenses.

5.2. Naro

5.2.1. Introduction

As observed in the literature review, Naro makes use of grammatical and natural gender. As observed earlier, Ju/'hoansi has pronouns that reflect the different noun classes while Naro uses person gender and number markers. This section has 12 subsections. Section 5.2.1.1 presents the noun classes while section 5.2.1.2 looks at the number category. On the other hand, section 5.2.1.3 deals with regular plurals while section 5.2.1.4 is devoted to the irregular plurals. Furthermore, section 5.2.1.5 deals with the neutral plural while section 5.2.2 presents tense and aspect markers. In addition, section 5.2.2.1 looks at tense marking by the use of adverbs. On the other hand, section 5.2.2.2 deals with the present whereas section 5.2.2.3 presents the habitual. Section 5.2.2.4 is devoted to the future while section 5.2.2.5 looks at the past. Lastly section 5.2.2.6 is devoted to the summary. Below is a table showing the noun classes in Naro.

5.2.1. 1.   Noun Classes

1st person	Singular	Plural
Masculine	r, ra	e
Feminine	r	e
Indefinite	i	n
2nd person		
Masculine	tsi(i)	xao(o)
Feminine	si(i)	sao(o)
3rd person		
Masculine	M	xu(u)
Feminine	S	zi(i)

Table 12: Naro noun classes (Visser 2001:238)

In Naro, nouns can be categorized according grammatical and natural gender. When assigning gender, all nouns are divided into two classes: animate and inanimate. In Naro, nouns have masculine, feminine or natural gender and three numbers namely singular, dual and plural, all of which are signalled by suffixes e.g. *kwe* 'person', *kwekhara* 'two people', *kwene* 'people' (Traill 1995:139). In other words, a word is identified unambiguously as a noun when it is marked by a person gender and number suffix, which indicates a third person in the combination of gender and number. It is observed that nouns and nominal modifiers can occur either with or without a person gender number marker suffixed to them.

Each combination of gender and number is indicated by a particular suffix. The evolution of person gender and number markers in Naro appears to have been determined by a pragmatic strategy commonly employed in the language whereby a noun is further specified by adding a marker providing more information about semantic characteristics of the referent expressed by the noun, especially information on the gender, number and personal deixis of that referent. This marker has the status of an afterthought of appositional constituent (Visser 2001:238). Whereas kin terms are associated with appropriate information on the person, gender and number of the referent concerned, generic nouns on the other hand, are less specific in this respect and, accordingly person gender and number markers are a relevant means of specifying generic nouns for person, gender and number.

One of the main functions of person gender and number markers as nominal suffixes, more precisely of personal pronouns used as nominal specifiers is that of a derivative marker used to express characteristics of person, gender and number of the preceding noun. The following examples involving the noun stem *kwe* 'person 'illustrate this function.

(66)   a. kwe**ba**   'man'   (Traill 1995:139)

          b. kwe**sa**   'woman'

          c. kwe**//kwa**   'men'

          d. kwe**ši**   'women'

          e. kwe**tšera**   'two men'

          f. kwe**šera**   'two women'

The masculine and feminine suffixes *–ba* and *–sa* signify more than just 'maleness and 'femaleness': the masculine suffix conveys the notions of strength, tallness or slenderness, while the feminine suffix adds the notions of smallness, weakness or roundness (from the assistants). The same thing applies to objects; those that are long and or strong are male while those that are round and or weak are female as shown in the examples below.

        g. hí   'plant' (from assistants)

        h. híi **ba**   'tree'

        i. híi **sa**   'a broad, low bush

This shows that the derivative use of person gender and number markers is not confined to human nouns; the semantics extends i.e. from human gender to shape the properties of inanimate items in the manner above. In the above examples, person gender and number markers use appears to serve primarily a semantic purpose, namely that of expressing specific properties of meaning (eg 'man as opposed to woman, girl as opposed to boy'). The noun classes found in Naro are fewer than those found in Ju/'hoansi. Futhemore, Naro has three classes all of which mark gender while in Ju/'hoansi gender is not marked.

5.2.1.2.   **Number Category**

There are three ways of forming regular plurals in L2. The most common way to form a plural is to add *–zi* to the noun, the plural of kinship terms is formed by suffixing *–gaxu* and plural for diminutives is formed by suffixing *–ne.* Just like in Ju/'hoansi,

plural formation in Naro falls into three categories namely; regular, irregular and neutral plural.

5.2.1.3.   **Regular Plurals**

The most common way of making a noun plural is to suffix –*zi*. In other words, nouns denoting people and nearly all things form their plurals by the suffixing of a plural morpheme –*zi*.

(67)   a.   Tcgaya 'book'   tcgaya**zi** 'books'

 b.   Tsara   'bird'   tsara**zi** 'birds'

 c.   Aiga 'mother'   aiga**zi** 'mothers'

The examples in (67) indicate that the most common way to mark plural of almost all things is to suffix –*zi* to the noun. In example (67a) the noun *tcgaya* 'book' becomes *tcgayazi* 'books' in the plural. The same holds for example (67c) *aiga* 'mother' which changes to *aigazi* 'mothers' in the plural.

The usual way to form the plural of kinship terms is to suffix the plural morpheme –*gaxu* though it does not apply to all kinship terms as shown in example (67c) *aiga**zi*** 'mothers' which takes the suffix –zi..

 d.   Abo 'father'   abo**gaxu** 'fathers'

 e.   Tiitsgõo 'uncle'   tiitsgõo**gaxu** 'uncles'

 f.   Cóába 'son'   Cóába**gaxu** 'sons'

 g.   Tiikii 'brother'   tiikii**gaxu** 'brothers'

Diminutives, which in the singular always end in the diminutive suffix –*cóá,* add –*ne* in the plural in no-kinship nouns.

 h.   Haghucóá 'puppy'   haghucóá**ne** 'puppies'

 i.   ghòècóá 'calf'   ghòècóá**ne** 'calves'

 j.   katsicóá 'kitten'   katsicóá**ne** 'kittens'

 k.   ghòòcóá 'chick'   ghòòcóá**ne** 'chicks'

5.2.1.4.   **Irregular Plurals**

A number of nouns have irregular plurals and take the suffix –*an*. The characterization of their irregularity is based on the suffix they take.

 l.   Tafole 'table'   tafole**an** 'tables'

 m.   Khòè 'person'   khòè**an** 'people'

 n.   Cháó   'bag'   cháó**an**   'bags'

5.2.1.5.   Neutral Plurals

Many nouns especially the names of animals and plant foods show no change in the plural.

o.	C'õò 'hairs'		c'õò 'hairs'
p.	Bùru 'Afrikaaner'		Bùru 'Afrikaaners'
q.	Nàwa 'beans'		nàwa 'beans'
r.	Nxàú 'blade'		nxàú 'blades'

The examples under neutral plurals, are the same in the singular as well as in the plural.

5.2.2. Tense and Aspect

For a more detailed discussion on tense and aspect, refer to section 5.1.2.

5.2.2.1.   Adverbs

Adverbs of time may also be used to express tense just like in Ju/'hoansi.

(68)   a. Ncẽe cáḿka 'today' (present) q'uuka 'yesterday' (past) q'uuká 'tomorrow'

    b. Xgari   ba   ko D'kar koe **ncẽecáḿka** qõò
      1-Xgari pgn prt D'kar to   today   go
      'Xgari goes to D'kar today'

    c. Tcgari   sa   **q'uuka**   tcãà
      Tcgari pgn yesterday arrive
      'Tcgari arrived yesterday'

    d. Kacgae koe ne gha **q'uuká**   qõò
      Kacgae to pn fut tomorrow go
      'They will go to Kacgae tomorrow'

A common position of such an adverb is before the verb in a sentence.

5.2.2.2.   Present

This is a tense that relates the time of an action to the present moment in time. The *ko* morpheme is a particle marking tense and/or aspect, a morpheme which is usually placed before the verb.

(69)   a.   Tshàa-r-**ko**   **ncẽeska** tsãàgu
          Water-pgn- prst   now   boil
          'I'm boiling the water'

      b.   Cóá   ba   **ko ncẽecaḿka** tcõoan tc'óó
          1-child pgn prst today   eat   food
          'The boy is eating food today'

c.   xg'òó ne **ko   ncẽeska** tcõ̀ò
        meat pgn prst now   eat
        'They are eating meat now'

In examples (69a , 69b and 69c) the morpheme *ko* comes before the verbs *tsãàgu* 'boil' and *tcõ̀ò* 'eat'. As seen in Ju/'hoansi, the present marker in Naro can also co-occur with the relevant present temporal adverbials.

5.2.2.3.   Habitual TA markers

This shows that the action is continous or unfinished.

d.   **ncẽeska   ko** qõ̀ò
        tomorrow hab go
        ' I am going now'

e.   dùú si **kg'áí ko**   kúù
        what you always hab do
        'What do you always do'

In the examples above, the morpheme *ko* is placed before the verb just like in the present. The examples above show that *ko* can co-occur with the relevant present temporal adverbials.

5.2.2.4.   Future

It is a tense form used to show that the event described by a verb will take place at a later time.

f.   Ghanzi koe Maria **gha q'uuká**   qõ̀ò
        Ghanzi to   Maria fut tomorrow go
        'Maria will go to Ghanzi tomorrow'

g.   **Ntùúkg'ai** cgoa Qao **gha** xgoàba
        morning   in   Qao fut   leave
        'Qao will leave in the morning'

As for its positions in the verb complex, the future morpheme *–gha* occurs before the verb. In example (69f) it occurs before the verb *qõ̀ò* 'go' while in (69g) it comes before the verb *xgoàba* 'leave'. The future marker can co-occur with the future temporal adverbials as indicated in the examples above.

5.2.2.5.   Past

This is the form of a verb which is usually used to show that the act described by the verb occured at a time before the present.

(70)   a.   Ntcõ̀ò gúù sam **kò q'uuka** hòò
                Chair object pgn pst yesterday find
                'He found the chair yesterday'

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b. péré ne-r **ãose kò** x'ama
bread pn-1sg longtime pst buy
'I bought bread longtime'

c. Tcee-a ne q'uuka **kò** tcéè
ears-prt their yesterday pst pull
'She pulled their ears yesterday'

d. donghi ba ncãa ko dàò **kò dqòa** qõo
donkey pgn pst part path pst evening walk
'The donkey was walking in the road in the evening'

The past tense is signaled by the morpheme *kò* which occurs before the verb just like in the present. In example (70a) it comes before the verb *hòò* 'find', on the other hand in examples (70b, 70c and 70d) it is found before the verbs *x'ama* 'buy', *tcéè* 'pull' and *qõo* 'walk'. The examples above show that the past tense marker can co-occur with the relevant past temporal adverbials.

5.2.2.6. Summary

In Naro nouns are categorized according to grammatical and natural gender. In other words, unlike in Ju/'hoansi where the five classes do not correspond to natural gender, in Naro the three classes are based on natural and grammatical gender. Furthermore, just like in Ju/'hoansi, plural formation is divided into three categories namely; regular plurals, irregular plurals and the neutral plural. Regular plural is marked by the morphemes *–zi, -gaxu* and *-ne*. As for tense marking all the morphemes occur before the verb just like in Ju/'hoansi. All the tense markers in Naro and Ju/'hoansi can co-occur with the relevant temporal adverbials.

5.3. !Xóõ

5.3.1. Noun Classes

In !Xóõ, we find a system which is more clearly a noun class system, in that it governs not only the choice of personal pronouns but also the agreement of many of the constituents in the !Xóõ sentence. In other words, !Xóõ has a fully fledged noun class system like the one found in Bantu languages. Nouns class suffixes in !Xóõ sentences govern a series of concordial affixes on dependent forms. In many cases, this concord has an alliterative form, in which the phonological shape of the suffixes resembles the phonological shape of the noun class suffix, but in many others the agreement is only grammatical (Traill 1994:20). These forms are adjectives, possessives, verbs, conjunctives, pronouns and demonstratives. Each noun is assigned to one of the five classes which it is convenient to designate numerically as class 1,2,3,4 and 5. Class membership is generally not predictable. However, class 1 is

always singular and class 4 is always plural, but not all singulars and plurals occur in classes 1 or 4. This therefore implies that class membership must be indicated both for the singular and for the plural of the noun. On the other hand, many nouns have a suffix on the stem which unambiguously indicates class membership. Most borrowings are assigned to class 3 in the singular and class 4 in the plural. Unlike in some Khoesan languages, none of the concordial classes in !Xóõ correspond to natural gender. This section has 12 subsections. Section 5.3.1 looks at the noun classes whereas section 5.3.1.1 deals with third person pronouns. On the other hand, section 5.3.1.2 presents the number category while section 5.3.1.3 looks at regular plurals. Furthermore, section 5.3.1.4 presents the irregular plurals whereas section 5.3.1.5 is devoted to the neutral plural. In addition, sections 5.3.2 looks at tense and aspect markers while section 5.3.2.1 deals with the adverbs. Section 5.3.2.2 is devoted to the present whereas section 5.3.2.3 looks at the habitual. On the other hand, section 5.3.2.4 presents the past while section 5.3.2.5 looks at the future. Lastly section 5.3.2.6 presents the summary.

Person	Singular	Dual	plural
First	**n-** I/me/my	≠náĩ	ĩh, ĭsĭ, ĩh‖ae-we/us
second	āh-you/your	≠nûm	ūh-you/your

Table 13: !Xóõ noun classes

The table above shows the system of noun classes and pronouns in !Xóõ.

5.3.1.1.   Third Person Pronouns

Class 1: ìh

Class 2: ãh

Class 3: èh

Class 4: ùh

Class 5: ń

Number is irrelevant in third person pronouns because the classes contain both singular and plural nouns. There is a final **–h** in most cases and the tone level is different.

Examples illustrating the concordial system for a variety of dependent forms follow. The examples in (71) below are taken from Traill (2005:21).

a. **Class**   Subj. tense   verb   **object** adjective rel.   verb   sative rel.

1   n   à   │nà-**i**   │á-**i**   !xà-**i**   t-**í**   │ˈâa   │îi   k-**ì**

I past see   lion   big   which dead   is   which

'I saw a large dead lion'

b.   2   n   à   │nà-**ã̃** ≠â-**ã̃** !xà-**ã̃**   t-**ã̃**   │ˈâa   │îi   k-**ã̃**

I   past   see   bone   big   which broken is   which

'I saw a large broken bone'

c. 3   n   à   │nà-**e** ǃ'û-│**e** ǃxà-**e**   t-**ē**   │'âa │îi   k-**ē**
     I   past   see   dish big   which broken is   which
     'I saw a large broken dish'

d. 4   n   à   │nà-**u** tù-**u** ǃxàb-**u**   t-**ú**│'âa │îi   k-**ù**
     I   past   see   people senior   who   dead are   who
     'I saw the dead elders'

In each case it is the noun functioning as the object which controls the concordial agreement. Identifiable noun suffixes and the concordial suffixes are bolded. As has been mentioned, the close resemblance or even identity in some cases between noun suffix and concordial suffix is not always found. In the case of class 5, it is never the case, hence the absence of this class in the examples above. Consider the examples below from Traill (2005:21) of non-alliterative concord.

Class	Subj.	tense	verb	**object**	adjective	rel.	verb	sative	rel.
e. 1	n	à	│nà-**í**	dào	ǃxà-**í**	t-**í**	ǃnóli-s	│îi	k-**ì**
	I	past	see	road	big	which	broken	is	which

'I saw the broken up big road'

f. 2	n	à	│nà-**ã̀**	ǃnohbu	ǃxà-**ã̀**	t-**ã̀**	ǃnóli-sí	│îi	k-**ã̀**
	I	past	see	blanket	large	which	spoilt	is	which

'I saw the large spoilt skin blanket'

g. 3	n	à	│nà-**e**	‖àn	ǃxà-**e**	t-**é**	ǃnóli-sí	│îi	k-**è**
	I	past	see	tuber	large	which	spoilt	is	which

'I saw the large spoilt tuber'

Class	Subj.	tense	verb	**object**	adjective	rel.	verb	sative	rel.
h. 4	n	à	│nà-**u**	│àho-tê	ǃxàb-**u**	t-ú	│'â	│îi	k-**ù**
	I	past	see	owls	big	which	dead	are	which

'I saw the big owls which were dead'

i. 5	n	à	│nà-**n**	thá-a	ǃxà-**n**	tá-**n**	│'âa	│îi	kà-**n**
	I	past	see	thing	big	which	broken	is	which

'I saw the large broken thing'

The details of class membership and concordial agreement are partly arbitrary and it is therefore necessary to mark each noun with its singular and plural classes so that the correct concords can be determined. This language thus shows the coexistence of a phonological based and purely based concordial system.

5.3.1.2. Number Category

There is no regular pairing of singular and plural classes, nor a regular phonological form for stems in any of the classes. There are a few cases of suppletive plural stems where the phonological shapes of singular and plural stems are completely distinct. Regular plurals occur in three ways. The most common way of making a noun plural is to add *–te* as shown in examples (72a, 72b and 72c). Kinship terms form their plurals by suffixing *–tu* as indicated in examples (72d, 72e, 72f and 72g) while diminutives use *–ne* as in examples (72h, 72i and 72j).

5.3.1.3. Regular Plurals

The most common way of making a noun plural is to suffix *–tê*.

(72)	a.	≠qhàba	'dog'		≠qhàba**tê**	'dogs'
	b.	ʘàã	'meat'		ʘàã**tê**	'pieces of meat' .
	c.	nàhn	'gums'		nàhn**tê**	'gums'

Examples (72a, 72b and 72c) conform to the common way of marking the plural since they all have the suffix - *tê*. Thus *nàhn* 'gum' becomes *nàhntê* 'gums'in the plural.

Kinship terms form their plurals by suffixing the morpheme *–tû* to the noun.

	d.	Nqhe	'uncle'	nqhe**tû**	'uncles'
	e.	qá.e	'mother'	qáe**tû**	'mothers'
	f.	àa	'father'	à̱a**tû**	'fathers'
	g.	Nqwa	'son'	nqwa**tû**	'sons'

Like in the other two languages, kinship terms have their own way of showing the plural. In this case it is marked by the suffix *–tû*. The noun *nqhe* 'uncle' in example (72d) becomes *nqhetû* in the plural.

Diminutives which in the singular usually end in the diminutive suffix *–qwa*, add *–ne* in the plural in non-kinship nouns.

	h.	≠hai**qwa** 'puppy'	≠haibateqwa**ne** 'puppies'
	i.	Katxi**qwa** 'kitten'	Katxiteqwa**ne** 'Kittens'
	j.	Koko**qwa** 'chick'	Kokoteqwa**ne** 'Chicks'

5.3.1.4. Irregular Plurals

Gloss		Singular	Sg.class	Plural	Pl.class
	k.	Mouse	g│xú'i	1	g│xúi'ătê	4
	l.	Udder	g!xâ'yĕ	3	g!xâ'ňsà	2
	m.	Tongue	'│nà̱ň	2	'│nà̱ňa	2
	n.	Stone	│nū│ĕ	3	│nūň	2
	o.	Dispute	'│nùã	2	'│nùmtê	2
	p.	Bustard	!nūũ	1	!n ū ŋă	4

There are two sets of plural suffixes, the first attaching directly to the bare noun root, replacing the singular suffix. The second set of plural suffixes attaches to the first set of plural suffixes eg. │à-│ŭ-tê 'wildbeets'. Singular form does not predict the form of the plural. The plural suffix –tê has expanded in function to become the regular plural suffix. Examples (72k, 72l, 72m, 72n, 72o and 72p) indicate that the nouns with irregular plurals belong to different classes. We have nouns form class 1 as indicated by examples (72k and 72 p), class 2 as in (72m and 72o) and class 3 as shown by examples (72l and 72n).

5.3.1.5. Neutral Plurals

    q.   soo   'medicine'

    r.   Xhuye 'bee'

    s.   Xhaa   'grass'

    t.   Q│om 'flower'

    u.   Tshaye 'smoke'

As demonstrated in Ju/'hoansi and Naro, a couple of nouns in !Xóõ also show no change in the plural; that is the singular and the plural are the same. For example *xhuye* 'bee' in (72r) is the same both in the singular and the plural.

5.3.2.   Tense and Aspect

5.3.2.1.   Adverbs

    Adverbs of time may also be used to express tense of a sentence e.g.

(73)   a.   ‖an te 'today' (present), Qàm 'yesterday' (past) and Khobe'tomorrow'
           (future).

       b.   Gustel sa   ke Bere ke ‖**an te é**
            Gustel goes to Bere prt   today
            'Gustel goes to Bere today'

       c.   Ya **qàm**   sa ke Bere xee
            He yesterday go to Bere
            'He went to Bere yesterday'

       d.   Gustel ban sa ke Xadeke **khobe**
            Gustel fut go to Xade   tomorrow
            'Gustel will go to Xade tomorrow'

    A common position of such an adverb is after the subject and at the end of a sentence, as shown above. In example (73b) the adverb ‖*an te* 'today' which marks the present

is found at the end of the sentence. In addition, the adverb *qàm* 'yesterday' signalling the past comes before the verb *sa* 'go' as indicated in (73c).

However, the adverb *khobe* 'tomorrow' which marks the future is found at the end of the sentence just like adverb ‖*an te* 'today'.

5.3.2.2.   Present

According to Nurse (2008:95), this is a tense which typically relates the time of an action or state to the present moment in time. The *ba* morpheme usually marks the present tense.

(74)   a.   Ta g   qwan **ń**   asaa   │**nehẽtèẽ**
               The boy eat prst   food   now
               'The boy is eating food now'

        b.   Gustel **ń**   bà káne kù   tùu   │à│qahe ‖**ante**
               Gustel prst asp want them people prt hunt today
               'Gustel want the people to hunt today'

The present morpheme in !Xóõ behaves differently from the ones in Ju/'hoansi and Naro in the sense that it occurs before and after the verb. This is shown in example (74a) in which – *ń* comes after the verb *qwan* 'eat'. However it occurs before the verb *káne* 'want' in example (74b). The examples above clearly indicate that the present tense marker in !Xóõ is able to co-occur with the present temporal adverbials just like in Ju/'hoansi and Naro.

5.3.2.3.   Habitual TA markers

The habitual marker shows that an action is continous or unfinished.
c.   xhabateń **bà** txhoe qhae
         lions   asp hunt   night
         'Lions (habitually) hunt at night'

d.   Ggobe ń   **bà** káne kù   │à│qahe **kookà′kã**
          Gustel prst asp want them prt hunt   everyday
         'Gustel want them to hunt everyday'
         The -*bà* comes before the verb in the habitual usage just like in the present tense. The habitual marker can co-occur with the present temporal adverbials as shown in the examples above.

5.3.2.4.   Past

It is the form of a verb which is usually used to show that the act described by the verb occurred at a time before the present (Nurse 2008:96). The past tense is marked by the morpheme –*à* as indicated in examples (e) and (f)..

e.   n **qaa**   **à** │nà-**i** │á-**i** !xà-**i** t-**í** │'âa │îi k-**ì**

I longago past see lion   big   which dead is   which
'I saw a large dead lion long ago'

f.   Xomate **à qàm**   !xam ãsa
Xomate pst yesterday cook porridge
'Xomate cooked porridge yesterday'

The examples above indicate that the morpheme *à* appears before the verb.
Just like the other tense markers, it can co-occur with the relevant past
temporal adverbials as indicated in the examples by *qaa* ' long ago' and *qàm*
'yesterday'.

5.3.2.5.   Future

This is a tense form used to indicate that the event described by a verb will take place
at a later time or stage (Nurse 2008:96). The future is marked by the particle *ban*.

(75) a.   Mpho **ban** xhama ka asaa **khobe**
Mpho fut   buy   part food tomorrow
'Mpho will buy food tomorrow'

b.   Taqae **ban** qau que mwane ‖**'án**
men fut go   to fields   later
'Men will go to the fields later'

c.   ɵaani   **ban**   tũu **!qhàn !ahie**
children fut bath month next
'The children will bath next month'

The future marker comes before the verb just like the present, habitual and past tense
markers. In example (75a) it occurs before the verb *xhama* 'buy', in (75b) before *qau*
'go' and lastly in (75c) before *tũu* 'bath'. As indicated in the examples above, the
future marker can co-occur with the relevant future temporal adverbials.
Consider the examples that follow.

d.   ≠qh**à**ba-te **ń bà** !**à**ji !nùũ
Dog-   pl tns. asp. stop hare
'The dogs stop the hare'

e.   * ≠qh**à**ba-te   !**à**ji !nùũ
Dog- pl   stop hare
'The dogs stop the hare'

 Example (75d) indicate that tense marking is obligatory in !Xóõ. However, sentences
without tense marking are considered ungrammatical as shown in example (75e).

5.3.2.6. Summary

There are five noun classes found in !Xóõ. Unlike in Ju/'hoansi and Naro, nouns in !Xóõ sentences govern a series of concordial affixes. In this way, the system in !Xóõ is closer to the systems in Bantu. However class 1 is always singular and class 4 is always plural but not all singulars and plurals occur in class 1 and 4. Plural marking is divided into three categories just like in Ju/'hoansi and Naro. Unlike in Ju/'hoansi and Naro, tense marking is obligatory in !Xóõ as indicated by the ungrammaticality of example (75d).

As for their positions in the verb complex, all tense markers occur before the verb in !Xóõ just like in Ju/'hoansi and Naro. Furthermore, these tense markers can co-occur with the relevant temporal adverbials.

5.4. Verbal Constructions
5.4.1. Introduction

The reason why we discuss the verbal constructions is that they occur in the three languages under study. As mentioned in chapter 4, we are going to use some aspects of Lexical Functional Grammar because this theory can easily accommodate verbal constructions. The verb category is the most complex constituent of the sentence in the sense that it is made up of many elements which are varied in distribution and function. Each of these verb elements has its own slot in the verb structure. In most Bantu languages, the verb group is made up of a set of inflectional elements followed by the verb stem. Furthermore in some Bantu languages, the subject inflection is known as the subject marker; the verb inflection as the tense aspect and mood marker. I would assume that it is important for a sentence to have a subject marker as it indicates what the subject is, in terms of noun class and number. In addition, a tense, aspect and mood marker must also be present so as to indicate not only the time of the action but also the state of the action. Additionally, in most Bantu languages, the verb is generally analyzed as comprising a verb root to which the verbal extensions and prefixes are added. In Bantu languages such as Setswana, a verb may be represented by a simple verb stem, such as *lema* 'plough'. But it could also be represented by a derived verb form such as *lem-el-a* 'plough for', *lem-iw-a* 'be ploughed'. The most common extensions in Bantu include; the applicative, causative, reciprocal, passive, neuter and the reflexive. Some Bantu languages allow a combination of two affixes

in both orders while others do not. In addition, some Bantu languages like Ikalanga allow a combination of both valency reducing processes while languages like Chichewa and Xitsonga do not.

These are called extensions because they extend the basic meaning or significance of the simple radical. A given radical may incorporate a number of extensions in a more or less fixed order. In some cases, however, the order may be varied depending on the meaning to be conveyed. In other words, verbal extensions entail verbal suffixes which are added to the root resulting in a new verb stem. They fall into two main groups, namely; productive verbal extensions and non- productive verbal extensions. The productive verbal extensions to which meanings can be attributed include tense/aspect/mood (TAM) markers on the one hand and suffixes which affect verb valency on the other hand. By contrast, non- productive extensions can formally be isolated as suffixes but cannot be attributed any meaning and, in most cases, do not have any syntactic consequences.

As observed in Hyman and Mchombo (1992) when looking at the Chichewa verb stem, verbal extensions do not just combine freely; they are subject to different kinds of sequential constraints. For example, Chichewa allows a sequence of the Applicative + Reciprocal extensions in (76a) but not Reciprocal + applicative in (76b) below (Hyman and Mchombo, 1992).

(76)   a.   Applicative + Reciprocal

               Man-ir-an-   'tie for each other'

       b.   *Reciprocal + Applicative

               *mang-an-ir   'tie each other for'

The fact that verbal extensions are subject to different kinds of sequential constraints in many Bantu languages has been known for many years by linguists working on Bantu languages (see also Mathangwane 2001, Dlayedwa 2002).   In this section therefore, I look into the complex morphology of the Khoesan verb stem and attempt to determine what morphotactic constraints hold in the ordering of the verbal constructions and how they are represented according to theoretical aspect of LFG. The most engaging aspect of Bantu verbal morphology lies in the verbal suffixes that also affect the number of NPs that the verb can support in the syntactic configuration. I am of the idea that the same aspect holds for Khoesan verbal morphology. The

suffixes can be divided into two groups; those that increase by one the number of NPs that can appear in a sentence and those that reduce by a corresponding amount the number of NPs the suffixed or extended verb can support. In other words, the extensions can be classified as +0 (add one object) or -0 (eliminate one object). Typical examples of the +0 extensions are the causative and the applicative while the -0 extensions are exemplified by the reciprocal, passive, extensive, neuter and reflexive. The idea is to try and find out if what holds in Bantu languages also holds in Khoesan languages. In addition, the sequence in which the suffixes occur will also be examined. This section has seven sub-sections. Section 5.4.1.1 looks at the argument adding suffixes whereas section 5.4.1.3 presents the argument reducing suffixes. Furthermore, section 5.4.1.7 discusses the co-occurrence of affixes while section 5.4.2. presents the findings. In addition, section 5.4.2.1 is devoted to suffix orderings with the causative whereas section 5.4.2.5 presents suffix orderings with the applicative. Lastly, section 5.4.2.8 is devoted to the summary.

5.4.1.1.   **Argument Adding Constructions**

5.4.1.2.   The Causative / Applicative

The causative extension is used productively to form semantically compositional causatives (corresponding to English 'make someone do X'). In the examples below I give simple sentences, from which causatives will be derived.

(77)   Base verb   ‖*a'ama* ' buy' (SUBJ)   (OBJ)

      a.   Kaùh ‖a'ama ko tji!ah   (Ju/'hoansi)
           Kaùh   buy part blanket
           'Kaùh buys a blanket'

      b.   A-structure   <ag   pt>

      c.   *n≠áí* ‖*a'ama*   'cause to buy' (SUBJ)   (OBJ2)   (OBJ1)
           Kaùh n≠áí ‖a'ama G≠kàò ko tji!ah
           Kaùh cause buy   G≠kàò part blanket
           'Kaùh makes G≠kàò   to buy a blanket'

      d.   A-Structure   <ag   causee pt>

      e.   Base verb   *k│ha* 'kill'   (SUBJ)   (OBJ)   (!Xóõ)

           Txhaaghaa k│ha yee qee
           Thief   kill   the dog
           'The thief kills the dog'

      f.   A-Structure   - *k│ha* 'kill'   <ag   pt>

g. │han k│ha 'cause to kill'   (SUBJ)   (OBJ2)   (OBJ1)
    Gustel │han txhaaghaa se k│ha yee qee
    Gustel caus thief   to kill   the dog
    'Gustel causes the thief to kill the dog'

h. A-Structure   <ag   exp   pt>

i. Base verb   *cg'áé* 'fall'   (SUBJ)   (OBJ)   (Naro)
    Haghu ba ncãa cg'áé
    Dog   pgn prst fall
    'The dog falls'

j. A-Structure   < ag   pt >

k. *cg'áé kagu* 'cause to fall'   (SUBJ)   (OBJ2)   (OBJ1)

l. Haghu ba ncãa katsi ba kagu me cg'áé
    Dog   pgn prst cat pgn cause prt fall
    'The dog causes the cat to fall'

m. A-Sructure   < ag   exp   pt >

n. Base verb tshega 'laugh'   (SUBJ)   (OBJ)   (Setswana)

o. monna o   a   tshega
    1-man 1- sm prst laugh
    'The man is laughing'

p. A-Structure   < ag   pt>

q. *tsheg-is-a* 'cause to laugh'

r. Monna yo o   a   re tsheg   -is-a
    1-man this 1-sm prst us laugh –caus-fv
    'This man makes us laugh'

The causative in Ju│'hoansi is realized by the morphs *n≠áí* and *–dù*. On the other
hand, in Naro the causative is shown by the morphs *–kagu* and *–è*. Lastly in !Xóõ it is
indicated by│*han* and in Setswana it is indicated by *–is-*. The causative morpheme is
suffixed to the verb with the result that there is a new NP introduced into the structure
as shown in the examples above.

Therefore in (77c), the subject argument *Kaùh* is causing the first object argument,
G≠kàò which is a cause to buy the second object argument *tji!ah* 'blanket'. The
blanket is realized as a patient. The same thing applies to example (77g) in which the
subject *Gustel* is making the first object argument *txhaaghaa* 'thief' to kill the
second argument *qee* 'dog'. Like the causative shown above, the applicative
constructions can also be derived from simple sentences as below.

(78) ‖a'ama 'buy'   (SUBJ)   (OBJ)
      Kaùh ‖a'ama ko tji!ah   (Ju/'hoansi)
      Kaùh buy   part blanket
      'Kaùh buys a blanket'

    a. A-Structure   ‖a'ama 'buy' <ag   pt>

    b.   ‖a'ama │a 'buy for'   (SUBJ)   (OBJ2)   (OBJ1)
         Kaùh ‖a'ama ko tji!ah │a G≠kàò'
         Kaùh buy   part blanket for G≠kàò
         ' Kaùh is buying a blanket for G≠àò'

    c. A-Structure ‖a'ama │a 'buy for' <ag   ben   pt>

    d. e 'eat'   (SUBJ)   (OBJ)
        Qomane ba e   pare   (!Xóõ)
        Qomane part eats bread
         'Qomane eats bread'

    e. A-Structure e 'eat'   <ag   pt>

    f. e xe 'eat for'   (SUBJ)   (OBJ2)   (OBJ1)
        Qomane e   pare   xe qgwa
         Qomane eats bread   app child
        'Qomane eats bread for the child'

    g. A-Structure e xe 'eat for'   <ag   ben   pt>

    h. kòre 'herd'   (SUBJ)   (OBJ) (Naro)

    i. Marea kòrè ghòean
        Marea herds cattle
        'Marea herds cattle'

    j. A-Structure   < ag   pt>

    k. kòre máá 'herds for' (SUBJ)   (OBJ2)   (OBJ1)

    l. X'aiga ko ghòean kòrè máá Marea

        Chief prst cattle herds for Marea

        'Marea herds cattle for the chief'

    m. A-Structure   < ag   ben   pt >

    n. reka 'buy'   (SUBJ)   (OBJ)   (Setswana)

    o. Ke   a reka
        1sg   am buying
        'I am buying'

    p. A-Structure   < ag   pt>

    q. rek-el-a 'buy for'

r.　Ke rek- el-a　　mme　　borotho
　　Isg buy -appl-fv 1-mother 13-bread
　　I am buying bread for my mother'
s.　A-Structure　　　　　　　　<ag　　　　ben　　　pt>

Like the causative *n≠ai* ‖*a'ama* 'make to buy', an applicative verb ‖*a'ama* │*a* 'buy for' is derived. The application of the applicative morphemes │*a, xe, máá* and –*el*- has introduced new objects argument in the same manner as the causative suffix *n≠ai*. The roles played by the new arguments are different. While *G≠kàò* is realized as a causee-object argument in the causative construction, he is playing a beneficiary role in the applicative sentence. The same applies to *qgwa* 'the child', who is also realized as a beneficiary. The conclusion is that the application of the causative and applicative suffixes gives rise to new syntactic arguments, i.e. genuine objects, which play a causee and beneficiary roles respectively. The causative and the applicative differ in the semantic roles and the grammatical functions associated with the new NP. As mentioned before, the new NP is agentive in the causative constructions and is normally realized as the subject of the sentence while the applicative introduces non-agentive NPs which are not directly associated with the subject function. The four verbs ‖*a'ama* 'buy , *e* 'eat', *kòre* 'herd' and *reka* 'buy'have only one object in the simple sentences.

In the applicative examples above, the NPs *G≠àò*' *qgwa* 'the child', *bata* 'chief' and mme 'mother' are introduced as the second objects and they are associated with the semantic roles of beneficiary. The two verbs therefore are associated with thematic roles of agent, theme and beneficiary.

5.4.1.3.　　Argument Reducing Constructions

Naro, !Xóõ and Ju│'hoansi have four argument reducing suffixes, namely the reciprocal, the passive, neuter, extensive and the reflexive but the researcher will look at only three of them namely, passive, reciprocal and the reflexive.

5.4.1.4.　　Passive Morpheme

The passive indicates that the subject of the verb is acted upon. It has the effect of demoting the subject NP to the status of the object and making the object NP the subject. In other words, the object of the active sentence appears as the subject of the

corresponding passive sentence. The passive therefore reduce by one the number of NPs that can appear in a sentence. In Ju/'hoansi it appears after the verb as well as in Naro and !Xóõ. Passive constructions are characterized by the morpheme │ʼe in Ju│'hoansi. On the other hand in Naro it is marked by è. Lastly it is indicated by *ke* in !Xóõ. Examples (79a, 79b and 79c) illustrate the above statements.

(79) a. Base verb *tc'óó* 'eat' (SUBJ) (OBJ)
     Cóán ba ko tcõòan tc'óó   (Naro)
     Boy pgn pst food eat
     'The boy ate food'

  b. A-Structure   <ag   pt>

  c. Passive *tc'óóè* 'eaten'   (SUBJ)
   Tcõò nea ncãa cóá ba ka tc'óóè
   food pn pst boy pgn part eat
   'The food has been eaten (by the boy)'

  d. A-Structure *tc'óóè* 'eaten' <ag>

  e. Base verb *qha│ă* 'plough' (SUBJ)   (OBJ) (!Xóõ)
   Taghaa ba qha│ă ke qha│â
   Man   prt plough the field
   'The man ploughed the field'

  f. A-Structure *qha│ă* 'plough' < ag   pt>

  g. Passive *qha│ă ke* 'being ploughed' (SUBJ)
   Qha│â eye ka qha│ă ke
   field is prt plough pass
   'The field is being ploughed'

 h. A-Structure *qha│ă ke* 'being ploughed' < ag>

 i. Base verb *an* 'eat' (SUBJ)   (OBJ) (Ju/'hoansi)
  Qgwa an asa
  Child eat food
  'The child ate the food'

 j. A-Structure   < ag   pt >

 k. Passive *an │ʼe* 'eaten' (SUBJ)
  Asa an │ʼe
  Food eat pass
  'The food has been eaten'

 l. A-Structure *an │ʼe* 'eaten ' < ag>

 m. Base verb *lema* 'plough' (SUBJ)   (OBJ) (Setswana)
  Monna o lema tshimo
  1-Man 1- sm plough field
  'The man is ploughing the field'

n. A-Structure   < ag   pt >

o. Passive *lemel-w-a* 'being ploughed' (SUBJ)
    Tshimo e a   leng-w-a
    Field   sm prst plough-pass-fv
    'The field is being ploughed '

p. A-Structure *lemel-w-a* 'being ploughed' < ag>

In examples (79c, 79g, 79j and 79o), the themes of the active sentences are realized as the subjects of the passive sentences while the subjects of the active sentences (79a,79e, 79i and 79m) are realized as the NPs. The examples clearly show that when the passive morpheme is applied to the verb, it demotes the subject and promotes the object into the position of the subject of the passive. The passive can acquire new words through nominalization as showm below.

r. │'à 'give'   │'à│'e 'be given'   │'ànce│'e 'gift' (!Xóõ)

s. g│aoh 'strong'   g│aoh 'be strong'   g│aoh 'strength' (Ju/'hoansi)

5.4.1.5.   Reciprocal Suffix

The other suffix that reduces the number of arguments a verb can take is the reciprocal. A verb is called reciprocal when it suggests that the people or things represented by the subject of the sentence are doing something to one another. In other words, it appears with one NP that denotes a group or by having a coordinate structured in the subject position. It reduces by one the number of arguments in a sentence. In many Bantu languages the reciprocal is represented by the suffix *–an-*. However, reciprocal constructions are marked by the presence of the reciprocal marker *khoe* in Ju│'hoansi and it occurs after the verb, *x│hae* in !Xóõ and it comes after the verb and *ku* in Naro and it appears after the verb as shown in the examples that follow.

(80) a. !'hoan are o   dshàú   (SUBJ)   (OBJ) (Ju/'hoansi)
         man love part woman
         'The man loves the woman'
         A-Structure *are* 'love'   < ag   pt>

     b. !'hoan sa dshàú   are o khoe   (SUBJ)
         man   and woman love prt rec
         'The man and the woman love each other'
         A-Structure   *are khoe* 'love each other' < ag/pt>

     c. Khóè ba ncàm khóè   sa   (SUBJ)   (OBJ) (Naro)
         Man pgn love woman pgn
         'The man loves the woman'
         A-Structure *ncàm* 'love'   < ag   pt >

d. Khóè ba hẽé   khóè   sa   hẽéthẽé khara ncàm ku (SUBJ)
   man pgn and   woman pgn also   they   love rec
   'The man and the woman love each other'
   A-Structure *ncàm ku* 'love each other'   < ag/pt >

e. Tagha xham tak│ae′n   (SUBJ)   (OBJ) (!Xóõ)
   Man   loves   woman

   'The man loves the woman'

   A-Structure *xham* 'love'   < ag   pt >

f. Tagha qha tak│ae′n xham x│hae (SUBJ)

   Man and woman   love rec

   'The man and the woman love each other'

   A-Structure *xham x│hae* 'love each other' < ag/pt >

g. Monna o   rata mosadi   (SUBJ)   (OBJ) (Setswana)

   1-man 1- sm love 1-woman

   'The man loves the woman'

   A-Structure *rata* 'love'   < ag   pt >

h. Monna le mosadi   ba   a   rat-an-a (SUBJ)

   1-Man   and 1-woman 2-sm prst love-rec-fv

   'The man and the woman love each other'

   A-Structure *rat-an-a* 'love each other'   < ag/pt >

The reciprocal construction above lacks the object argument. This is due to the fact
that the original object argument is cojoined with the subject argument to share the
role of instigating the action to each other. In addition, the example shows that the
reciprocalized verb requires subjects with plural reference. The usage of the reciprocal
suffix therefore conveys the meaning of two or more individuals, which are engaged
in some activity. In this case, it is the man and the woman engaged in the activity of
loving each other.

5.4.1.6.   The Reflexive

This is a verb used so as to imply that the subject is doing something to himself or
herself. To express a reflexive action in Ju│'hoansi, │*äè* (plural │*äèsi*) 'self/selves'

is used. With the personal pronouns *m!á* 'we' (inclusive), *è!á* 'we' (exclusive), *ì!á* 'you' (pl), and *sì!á* 'they', the *-!á* is left out preceding │ *àèsi* 'selves'.

On the other hand in Naro the reflexive is marked by the following; *-se* 'myself','himself' and 'herself',*ne* 'themselves', *ta* 'ourselves', *a* 'yourself', *tu* 'yourselves', and *an* 'itself'. However in !Xóõ, it is shown by *tam* 'himself/herself/myself, *qomta* 'themselves' and *ta* 'ourselves'.

Mchombo (1993:195) claims that the reflexive unlike the reciprocal is a syntactic argument that functions as the object of the verb. He is of the opinion that the reflexive behaves like the object marker. Consider the example below from Naro.

(81)   a.   Haghu ba ko dxau ba xhaia   *xhaia* 'chase' (SUBJ) (OBJ) (Naro)
            Dog 3sg prt rat 3sg chase
            'The dog chase the rat'

       b.   A-structure   *xhaia* 'chase'   < ag   pt>

       c.   Haghu ba ko xhaia se *xhaia se* 'chase himself'
            Dog pgn prst chase himself
            'The dog chases himself'

       d.   G≠hòà !xòè n│huì   *!xòè* 'chase' (SUBJ) (OBJ) (Ju/'hoansi)
            Dog chase rat
            'The dog chases the rat'

       e.   A-Structure *!xòè* 'chase'   < ag   pt >

       f.   G≠hòà !xòè ha│'ae   *!xòè ha│'ae* 'chase himself'
            dog   chase himself
            'The dog chases himself'

       g.   A-structure   *!xòè ha│'ae* 'chase himself'   < ag/pt >

       h.   Service txhaa qhoye   *qhoye* 'chase' (SUBJ) (OBJ) (!Xóõ)
            Service chase rat
            'Service chases the rat'

       i.   A-Structure *qhoye* 'chase'   < ag   pt >

       j.   Service txhaa tam *txhaa tam* 'chase himself'
            Service chase himself
            'Service chases himself'

k. Mpho   o alola peba alola 'chase' (SUBJ) (OBJ) (Setswana)
    1-Mpho 1-sm chase 9-rat
    'Mpho chases the rat'

l. A-Structure alola 'chase'   < ag   pt >

m. Mpho o   a   i-kalola   *ikalola* 'chase herself'
    1-Mpho 1-sm prst refl-chase
    'Mpho chases herself'

The above example indicates that when the reflexive morpheme is attached to the verb stem it implies that the subject is doing something to himself as shown above. Mchombo (1993:195) states that the reflexive suffix like other suffixes is involved in the determination of expressible NP arguments within the sentence. The examples above indicate that unlike in Bantu where the reflexive is expressed with a suffix, in Khoesan languages it is expressed with a free form. I believe that just like other constructions, the reflexive also give rise to nominalized forms as seen in example (n) below.

n. !xòè 'chase'   !xòè ha│'ae 'chases himself' 'Ju/'hoansi'

The paragraph that follows highlights possibilities of the combination of the argument increasing constructions with the argument reducing ones in the derivation of further predicates.

5.4.1.7.   Co-occurrence of verbal constructions
5.4.1.8.   Causative and Reciprocal Ordering

In the above discussion, the researcher has only presented constructions with single verbal constructions i.e. an argument increasing morpheme or an argument reducing morpheme. The examples below show the reciprocal use of the causatives.

(82)   a.   Kaùh ║'ama G≠kàò n≠áí khòè tji!ah (Ju/'hoansi)
                Kaùh buy G≠kàò caus rec blanket
                'Kaùh and G≠kàò make each other buy a blanket'

        b.   Marry qhe John │han ku qom x│hae sabi (!Xóõ)
                Marry and John caus prst buy   rec blanket
                'Marry and John make each other buy a blanket'

        c.   Marry khara John kagu ko ku wèéa ba xʼámá (Naro)
                Marry and   John caus prst rec   both pgn buy
                'Marry and John make each other buy a blanket'

*d.   Marry qhe John x│hae ka ban qom │han txhaa seesa
        Marry and John   rec   to teach caus   to cook
        'Marry and John cause to teach each other to cook'

Sentences (82a,82b and 82c) demonstrate the reciprocal use of the causative. However, the ordering ***rec-caus** does not exist in these languages as indicated in example (82d). On the other hand, Mathangwane (2001:398) argues that in Ikalanga the ordering Rec-Caus occurs as indicated in example (82e).

    e.   dabil   -an-is- 'cause each other to answer'
            verb root- rec-caus

In addition, in Ikalanga the pass + rec and vise versa combinations are possible as illustrated in examples (8ef and 82g) taken from Mathangwane (2001:405).

REC-PASS

    f.   Lób   -an-(i)-w (lób-aŋ-w-) 'be beaten by each other'
         verb root- rec- pass

    g.   PASS-REC
         lób   -w   -an- (lóg-w-an-) 'be beaten by each other'
         verb root- pass- rec

Mathangwane argues that unlike in Chichewa, in Ikalanga it is possible to eliminate the argument requirements of the verb. The data shows that in the languages under study, it is not possible to combine the two extensions in both orders. The combination of the two is restricted by the fact that they both reduce by one the number of argument a verb can take.

The examples below show that it is possible to add other constructions to the causative and the reciprocal.

    h. Haghu ba nakam katsi ba hẽéthẽé tsara ko kúrú ku   a   dxàu ba maaku
        Dog   pgn and cat pgn conj   part part caus rec part rat pgn for
       'The dog and the cat cause each other to give each other a rat'   (Naro)

    i.   Gustel qhe Wire kuta   │han   se txhaa ke qhoye x│hae
            Gustel and Wire themselves cause to chase   the rat   rec
            Gustel and Wire cause themselves to chase the rat for each other'
            (!Xóõ)

    j.   G≠hòà sa n│oàhn n≠áí 'm   │'e n│huì o khòè   (Ju/'hoansi)
            Dog and   cat caus eat   pass rat part rec
            'The dog and the cat have caused each other to eat a rat'

The examples above clearly indicate that the causative precedes the reciprocal.

Example (82h) shows the combination; **Caus-Rec-Rec**, while (82i) indicates **Caus-**

Refl-Rec and lastly (82j) shows **Pass-Caus-Rec-Appl**. Even though the ***Pass-Caus** ordering is not acceptable in these languages, the same ordering becomes acceptable when other constructions are added resulting in the ordering **Pass-Caus-Rec-App** as shown in (82j). The data clearly indicates that it is possible for the reciprocal to double following one another as revealed in (82h).

The next paragraph, examines the application of the argument reducing morphemes on the applicative.

(83) a.   khóè ba hẽé naka-s khóè   sa hẽéthẽéa ko tc'õoan x'ám-á máá ku
             Man pgn and conj-pgn woman pgn also part food   buy   for each
             other
             'The man and the woman buy the food for each other' (Naro)

      b.   G≠hòà sa n│oàn n≠haò !'a o   khoe   (Ju/'hoansi)
             Dog and cat   fall for part rec
             'The dog and the cat fall for each other'

Like the causative constructions derived above, the applicative is compatible with the argument reducing morphemes too.

The combination of the two argument increasing morphemes with one of the argument reducing morphemes is also possible.

      c. Gustel │han xe tam   txha ke qhoye xu tom ta (!Xóõ)
         Gustel cause for himself   chase the rat   in   house
         'Gustel causes to chase the rat for himself in the house'

      d. N|oàhn n≠àí ha |'ae   ko n|huì ko G≠hòà ko tjù n|ang(Ju/'hoansi)
        Cat causes himself part rat part dog   part house inside
        'The cat causes himself to chase the rat for the dog in the house'

Passivation of the applicative causative verb 'cause to chase for' is also possible. Consider example (83e).

      e.   Dxàu ba ko kúrú a   haghu-m ka xhàie ko e katsi xu ka (Naro)

          rat   pgn part cause part dog-app part chase pst pass cat pn part

          'The rat is caused to be chased for the dog by the cat'

      f.   Qhoye eke a │han txhaa ke   xe qee ke katsee (!Xóõ)
         Rat   is prt cause chase pass for dog   by cat

         'The rat is caused to be chased for the dog by the cat'

The above examples demonstrate that it is possible to combine two argument reducing constructions with one of the argument increasing construction morphemes. In the section below, the researcher gives all the possible combinations found in these

languages. Combinations not acceptable in these languages are marked with an asterisk.

5.4.1.9. Possible Morpheme Orderings

The following tables give a summary of the possible morpheme orderings in the three languages. Table 14 gives double combinations whereas table 15 gives triple combinations. Furthermore, table 16 gives quadruple combinations. All these combinations are manifested in the three languages under consideration and the examples illustrating the combinations are shown under findings.

	APP	CAUS	REC	PASS	REFL
APP			+		+
CAUS			+	+	+
PASS	+				

TABLE 14: **DOUBLE COMBINATIONS**

	APP	CAUS	REC	PASS	REFL
PASS-REC	+				
PASS-APP			+		
CAUS-PAS	+				
CAUS-APP					+
CAUS-REF	+				+
CAUS-REC	+	+	+		

TABLE 15: TRIPLE COMBINATIONS

	APP	CAUS	REC	PASS	REFL
CAUS-REFL-APP			+		+
PASS-CAUS-REC	+				

TABLE 16: Quardruple Combinations

5.4.2.   **Findings**

5.4.2.1.   **Morpheme Orderings with the Causative**

The causative morpheme can precede the passive as indicated in (82h,i and j). Even though the ***Pass-Caus** ordering is not acceptable in these languages, the same ordering becomes acceptable when other extensions are added, resulting in the ordering **Pass-Caus-Rec-App** as shown below.

(84a).   Haghu ba hẽé nakamkatsi hẽéthẽétsarancãa kagu ku tsara ncãa dxàu ba tc'õó
          Dog pgn do and   cat   conj   part adj cause rec part part rat pgn eat
          ' The dog and the cat have caused each other to eat a rat'.   (Naro)

   b.   Qee qhe katsee ke │han ku qom x│hae │*a* qhoye   (!Xóõ)
        Dog and cat   pass caus prt eat rec   app rat
        'The dog and the cat have caused each other to eat a rat'

   c.   G≠hòà sa n│oàn │'e 'm n≠áí o khòè │'a
        (Ju/'hoansi)
        Dog and cat   pass eat caus prt rec   app
        'The dog and the cat have caused each other to eat a rat'

5.4.2.2.   **Causative-Reciprocal**

This is one of the possible combinations in these languages. The causative precedes the reciprocal as indicated in examples (82a), (82b) and (82c). However, the ordering ***rec-caus** does not exist in the languages under consideration as shown by example (82d). The data shows that it is possible for the reciprocal to double following one another as revealed in (84d, e and f).

   d.   'Haghu ba hẽé nakam katsi ba hẽéthẽé kama ko   kagu ku   a dxàu ba maa ku
        Dog pgn do and   cat   pgn conj   give part cause rec   part rat pgn for rec
        'The dog and the cat cause each other to give each other a rat'.   (Naro)

   e.   G≠hòà sa n│oàn n≠áí khòè o │'àn khòè ko n│huì   (Ju/'hoansi)
        Dog   and cat   cause rec to give rec a   rat
        'The dog and the cat cause each other to give each other a rat'

   f.   Qhee qhe katsee │han x│hae ta !qháã x│hae ku qhoye (!Xóõ)
        Dog and cat   cause rec   to give rec   a rat
        'The dog and the cat cause each other to give each other a rat'

5.4.2.3.   **Causative-Reflexive**

This ordering is possible in both the three languages and the causative precedes the reflexive. It is possible for the reflexive to be doubled following one another as in (84g and 84h).

g. Haghu ba ko kagu-se a dxàu ba xhàia máá-se nquum q'oo koe (Naro)
     Dog pgn part cause-refl part rat pgn chase for-refl house inside in
     'The dog causes himself to chase the rat for himself in the house'.

h. Nqham ke ya │han ke tam se txhaase tee xe tam ke x│ae twe (!Xóõ)
     Granny   caus refl to make tea app refl   house
     'Granny causes herself to make the tea for herself in the house'

i. G≠hòà n≠áí !xòè ha│'ae ko n│huì │'a ha│'ae tjù (Ju/'hoansi)
     Dog causes chase himself prt rat for himself house
     'The dog causes himself to chase the rat for himself in the house'

5.4.2.4. The Passive Morpheme

The **Pass-App** is one possible ordering in the languages under study. It appears that the passive affix only occurs before the applicative as shown earlier. However, orderings in which the passive morpheme occurs after the applicative are not acceptable; thus ***App-Pass**. The passive extension can also allow the addition or intervention of a third extension. This is the case when the reciprocal extension is added and when it intervenes resulting in **Pass- App-Rec and Pass-Rec-App.**

j. Wire qhe Service ba txhaa ke pari xe qom x│hae (!Xóõ)
     Wire and Service prt chase pass goat app rec
     'Wire and Service have chased a goat for each other'

k. G≠hòà sa n│oàn !xòè │'e n│huì │'a khòè (Ju/'hoansi)
     Dog and cat chase pass rat app rec
     'The dog and the cat have chased a rat for each other'

l. Haghu ba hẽé nakam katsi tsara ko dxàu ba xhaía e maa ku (Naro)
     Dog pgn prt and cat have prt rat pgn chase pass app rec
     'The dog and the cat have chased a rat for each other'

m. Sara qhe Marry txhaa ka qom x│hae xe qom k│ae (!Xóõ)
     Sara and Marry chase prt rec app mother
     'Sara and Marry have chased each other for mother'
     Service and Wire, the dog and the cat and mother are both associated with the
     role of beneficiary.

5.4.2.5. Morpheme Orderings with the Applicative

5.4.2.6. Applicative-Reciprocal

In the case of the applicative-reciprocal ordering, only the **App-Rec** ordering is possible as seen in (83a) and (83b) whereby the applicative precedes the reciprocal. The ordering ***Rec-App** is not acceptable. Even though this ordering is not acceptable, it becomes acceptable when other morphemes are added, in this case the

Passive- Causative morphemes are added resulting in **Passive-Causative-Reciprocal-Applicative** as exemplified in (84a, b and c).

5.4.2.7.   **Applicative-Reflexive**

In the case of the **applicative-reflexive** morphemes, both orderings are possible. In this combination, the applicative precedes the reflexive .However, in the ordering **Refl-App**, the applicative comes after the reflexive.

n.   G≠húí n≠ai !xòè   ha ǀ'ae   ko ╎'a nǁhuì ha ǀ'ae   tjù nǀang
        (Ju/'hoansi)
        Dog   causes chase himself part for rat   himself   house inside
        'The dog causes himself to chase the rat for himself in the house'

o.   Service txhaa qhoye xe tam   (!Xóõ)
        Service chase rat   app refl
        'Service chase the rat for himself'

p.   Haghu ba ko dxàu ba xhaia   máá se (Naro)
        Dog   pgn prst rat pgn chase app refl
        'The dog chases the rat for himself'

In this section, it has been shown that some morpheme orderings are possible in the languages under study while others are not. The data clearly shows that certain combinations that are acceptable in one language may not be acceptable in another language. For example, the languages under study have the ordering **Pass-App**, **Caus-App**, **Caus-Rec** etc. which ordering does not occur in Ikalanga. On the other hand, Ikalanga has the orderings **Rec-App**, **Caus-App**, **Pass-Rec** etc which do not occur in these languages and in Setswana. The **Rec-App** does not occur also in Chichewa. Furthermore, the phonology is also shown to play an important role in determining whether a particular ordering is acceptable or not. This is shown in the doubling of some constructions with or without the addition or intervention of other morphemes. The data suggests that these languages just like some other Bantu languages allow repetition of certain morphemes like in (84d, e,f , etc).

Table 17 below gives a summary of the class markers, person gender and number markers and tense/aspect markers while table 18 gives a summary of the verbal construction markers in the three languages.

Summary

Language	Class markers	Pgn markers	Tense/aspect markers
!Xóõ	-ì, -ã̀, -è, -ù, -ń ìh, ã̀h, èh, ùh, ń	No gender distinctions	bá, à, ń,ban
Ju/'hoansi	mi, a, ha, hi, ka, e/e!a, m/m!a, i/i!a, si, hi	No gender marking	Ø, koh, ku, kaqan, ka, ǀàmà,goàqǂ'an, n!homà'
Naro	No class markers	r, i, tsi, si, m,s, e, n, xao, sao, xu, zi	kò, hã̀a, gha, ka

Table 17: Class, pgn & tense/aspect markers in the three languages

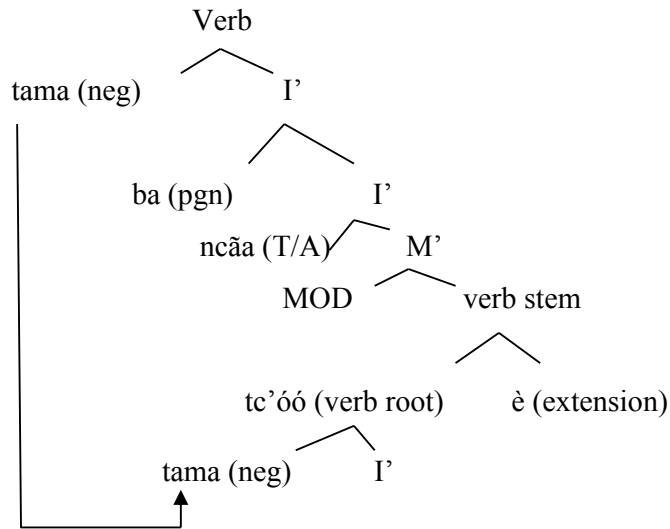| Language	Applicative	Causative	Reflexive	Reciprocal	Passive
Naro	máá	-kagu, è	-se, -ta	-ku	Èa
!Xóõ	-xe, -xen	-te	-tam	ǁhae	Xee
Juǀ'hoansi	ǀ'an	n≠ai	ǀ'àè, ǀ'àèsi	Khoe	ǀ'e

Table 18: Verbal construction markers in the three languages

Among the three languages !Xóõ is the only language which has a noun class system that is closer to what obtains in Bantu. There are five noun classes in Ju/'hoansi, none of which correspond to natural gender whereas in Naro, nouns are categorized into three genders. On the other hand, in !Xóõ nouns are classified into five classes governing particular concordial agreement and there is no gender distinctions just like in Ju/'hoansi. There are class markers in Ju/'hoansi and !Xóõ, whereas in Naro there are no class markers.The three languages mark plural formation in three ways; thus regular plurals, irregular plurals and the neutral plural. Adverbs in Ju/'hoansi, Naro and !Xóõ can co-occur with the relevant tenses.

The data clearly shows that the tense and aspect markers occur in different positions in the verb complex in the three languages. As for the verbal constructions, the data clearly shows that they do not just combine freely; they are subject to different kinds of sequential constraints.
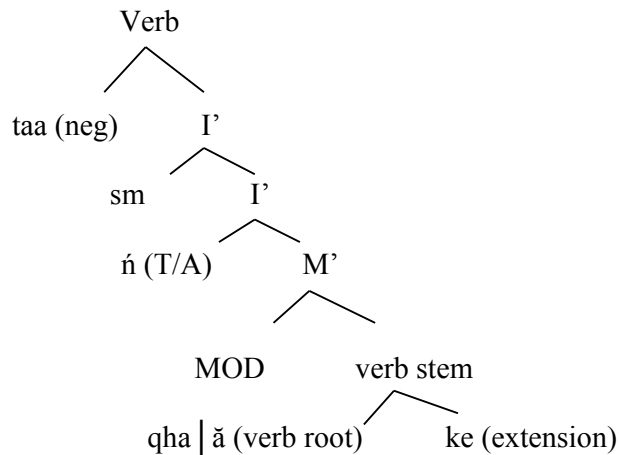
Figure 13 below shows the order of the elements of the verb complex in Naro while figure 14 shows the order of the elements in Ju/'hoansi and !Xóõ. Naro is represented by example (85) below while Ju/'hoansi and !Xóõ are represented by example (86).

(85)   Tcõò tama cóá ba ncãa ka tc'óó **è**   (Naro)
       food neg   boy pgn pst   part eat   pass
       'The food has not been eaten (by the boy)'

```
                        Verb
                       /    \
          tama (neg)          I'
         |                   /  \
         |        ba (pgn)        I'
         |                       /  \
         |            ncãa (T/A)      M'
         |                           /   \
         |                    MOD         verb stem
         |                                /    \
         |              tc'óó (verb root)      è (extension)
         |             /    \
         └──→  tama (neg)     I'
```

Figure 13: Naro verb structure

(86)   Qha│â taa ń qha│ă ke   ka taghaa
           field   neg is plough pass the man
           'The field is not ploughed by the man'

```
                    Verb
                   /    \
      taa (neg)           I'
                        /   \
               sm            I'
                           /   \
                  ń (T/A)        M'
                               /   \
                        MOD         verb stem
                                    /    \
                  qha│ă (verb root)      ke (extension)
```

Figure 14: Ju/'hoansi and !Xóõ verb structure

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The elements found in figure 10 and 11 above are, the negative marker, subject marker for Ju/'hoansi and !Xóõ and person gender and number marker for Naro, tense and aspect marker, verb root and construction marker.

The elements mentioned above occur in different positions in the three languages as indicated earlier in the chapter in sections 5.1.2, 5.2.2 and 5.3.2.6. Thus, in Ju/'hoansi and !Xóõ, the negative marker follows the verb root while in Naro it comes after the verb. As for the tense and aspect marker, it occurs before the verb in all the three languages. In these languages lexical units tend to operate in an uninflected manner. The person gender and number marker and the subject marker do not modify the verb. Some of the elements presented in the figures above may not necessarily be present in a given verb form.

The next chapter discusses the main similarities and differences found in the three languages.

CHAPTER 6 : Summary and Conclusions

5.5   Conclusion

This chapter gives a brief summary of the main similarities and differences found in the three languages.

All the three languages have tense markers. The negation particle that comes before the verb in Ju│'hoansi and !Xóõ and after the verb in Naro. Questions are marked in a similar way by inserting a particle before the verb. Verbal constructions exist in the three languages and are marked by different morphemes. I call these morphemes and not suffixes because they occur as free forms and are not attached to the verb. Consonants are divided into two sub-systems (clicks and ordinary consonants) for all the three languages. Ju/'hoansi, Naro and !Xóõ have a complex inventory of clicks. All the three languages have a five basic vowel system. The three languages have a word structure of predominantly CVCV, CVV and CVN sequences. Ju/'hoansi, Naro and !Xóõ are tone languages and lexical tone exists in all the three languages.

The data indicate that Ju/'hoansi and Naro do not have noun class systems like those in !Xóõ and in the Bantu system nor do they have a rich system of agreement particles. These two facts set the two languages apart from !Xóõ and the Bantu family. Class markers exist in Ju│'hoansi and !Xóõ but not in Naro. Major differences in the three languages occur at the grammatical level, for example, Northern Khoesan (e.g. Ju/'hoansi) has little morphology compared to Central Khoesan, but it has a fairly elaborate syntactic structure. The Central languages (e.g. Naro) have a unique nominal and pronominal person gender number (PGN) system compared to Northern and Southern Khoesan and a large variety of verbal constructions. There is no gender marking in Ju│'hoansi and !Xóõ. In the Southern branch (e.g. !Xóõ), the bilabial click influx is unique.

The three languages under discussion do not appear to belong to one homogeneous word order type. The basic word order is SVO (subject- verb- object). Ju/'hoansi is SVO, Naro is SOV and !Xóõ is SVO.

On the other hand, tense marking is obligatory in !Xóõ and not in the other two languages. However, negation comes before the verb in Ju│'hoansi and !Xóõ whereas in Naro it comes after the verb.

The table presented below shows the main similarities and differences found in the three languages.

Ju/'hoansi	Naro	!Xóõ
SVO	SOV	SVO
Tense marking not obligatory	Tense marking not obligatory	Obligatory tense marking
Negation-verb	Verb-negation	Negation-verb
Negation particle	Negation particle	Negation particle
Free tense morpheme	Free tense morpheme	Free tense morpheme

Table 19: Similarities and differences obtaining amongst the three languages

In conclusion the three languages have different word orders, Ju/'hoansi and !Xóõ are SVO while Naro is SOV. Amongst the three languages, !Xóõ is the only language which has a noun class system that is closer to Bantu. !Xóõ has five noun classes, often identifiable suffixes on nouns, noun classes not based on natural gender, regular plurals formed by suffixing */-te/*, and a large number of irregular plurals which involve making changes on stems. On the other hand, Naro has three noun classes which are based on gender. Lastly, Ju/'hoansi has five classes like !Xóõ, no suffix in the singular and suffix not obligatory even in the plural, nouns with irregular plurals and no gender concord. All the three languages mark tense and aspect. On the other hand, tense marking is obligatory in !Xóõ and not in Ju/'hoansi and Naro. Furthermore, tense and aspect markers occur before the verb in all the three languages. The three languages have different markers for verbal constructions. The data shows those constructions that can combine and those that cannot. I have shown in section 5.4.2 that certain constructions may need to occur before others so as to create the necessary environment for others to apply. The elements that form the verb complex in the three languages are; the negative marker, tense and apect marker and the construction markers. These occur in different positions in the three languages.

5.5.1 Further Research

The focus of the study was on the verb complex; that is the elements that form the verb complex of Ju/'hoansi, Naro and !Xóõ . These elements include the class markers, tense and aspect markers and verbal construction markers found in the three languages. The study focused on the positions in which the above mentioned markers appear in the verb complex. Most of the languages have been affected by language shift and language death. Furthermore, some languages have very few speakers and if research is not undertaken urgently, the languages will die. Further research should be detailed and focus on areas such as language contact (with Bantu languages), language shift, the effects of borrowing and language maintainance. Furthermore, detailed descriptions of grammars of the three languages are needed.

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5.5.3   APPENDIX

Appendix A: Ju/'hoansi tense and aspect markers

PRESENT TENSE   -a

Ke a reka	'I am buying'	**mi ku ‖'ama**
Ba a bina	'they are dancing'	**se ku djxani**
Re a ja	'we are eating'	**e ku 'm**
O a apara	'she is dressing'	**ha ku ‖aqma**
Se a fisa	'it is hot'	**khwekhwi**
Le a baba	'it is chilli'	**ka ku xababa**
E a lela	'it is crying'	**ka ku tjini**
Ke reka masi	'I am buying milk'	**mi ku ‖a'ama kuo**
Ba bina mmino wa setso	'they are dressing traditional dance'	**se ku djxani djxai**
Ba ja nama	'they are eating meat'	**se ku 'm !haa**
O apara mosese	'she is putting on a dress'	**ha ku ‖aqma !xum**
Le baba thata	'it is too chilli'	**ka ku xababa g|aoa**
E lela mo sakeng	'it is crying in the kraal'	**ha ku tjina !hu n!ang**
Mosimane o fatsa dikgong	'the boy is chopping wood'	**!'hoan ma ku ‖um da'a**
Tonki e tsamaya mo tseleng	'the donkey is walking on the road'	**dongi ku n≠haoa n!a'ma**
Ngwana o tsamaya sentle	'the child walks well'	**da'ama n!ang ‖au ku n≠hao**
Mosadi o gotsa molelo	the woman is kindling fire'	**dshau ka |xoa da'a**
Banna ba lema tshimo	'men are ploughing the field'	**n‖aqe ku ‖ara**

NEGATIVE

Ga ke reke	'I am not buying'	**mi |oa ‖a'ama**
Ga a bine	'he is not dancing'	**ha |oa djxani**
Ga o lwale	'You are not sick'	**a |oa |kae**

USAGE

Ga ke itse	'I do not know'	**mi |oa !ah**
Ga kere sepe	'I am not saying anything'	**mi |oak o tci nlui**
Nkwe ga eje bojang	'a tiger does not eat grass'	**g!huhm |u 'm ‖aisi**
Ntate ga a dumele	'father does not agree'	**'mba |oa zaihn**

HABITUAL USAGE

Ke tsamaya ka moso	'I go/will go tomorrow'	**n!ohma!'o mi ku u**
Ditau di tsoma bosigo	'lions (habitually) hunt at night'	**n!hai ku !aqea g|u**
O dirang?	'what are you doing/do u do'	**a re ku du hatchee?**
Ke mooki	'I am a nurse)	**mi o n|huhm kxao ko ‖xoa o mi g**

PAST TENSE   -ne

ke ne ka reka borotho   'I bought bread'   **mi ko ‖a'ama xai**

Ke rekile borotho   'I bought bread'   **mi ‖a'ama xai**

Mosimane one a fatsa dikgong 'the boy chopped wood'   **n!ohma ko ‖um da'a**

Tonki ene e tsamaya mo tseleng   'the donkey was walking in the road' **dongi ko n≠haoa n!'ama n!ang**

Ngwana one a tsamaya sentle 'the child was walking well'   **da'ama ko ‖au n≠hao**
Mosadi one a gotsa molelo   'the woman kindled fire'   **dshau ko |xoa da'a**

NEGATIVE
Ga ke aka ka reka   'I did not buy'   **mi |oa ‖a'ama**
G re aka ra bona ope mo tseleng   'we did not see anyone on the way'   **e |oa ho jului ko n!ha'ama n!ang**
Ngwaga o o fetileng ga goaka ga fisa thata   'last year it wasn't very hot'   **kurea n≠ahin o ka khwe ko |oa khui**
Kene ka seka ka reka   'I did not buy'   **mi ko |oa ‖a'ama**

PAST PERFECT
Ke ne ke rekile   'I had bought' **mi ko ‖a'ama**
Ke ne ke sa reka   'I had not bought'   **mi ko |oa ‖a'ama**
Dipodi di ne di isitswe kwa morakeng   'the goats had been taken to the cattlepost' **pari ko teni ua he |'esi ko !'ama**
O ne o ile kae maabane   'where had you gone yesterday?'   **ko re goaq ≠'a a ko n≠ha'u**

FUTURE   -tla
Kamoso re tla ya kwa toropong   'tomorrow we shall go to town'   **n!hokoma e ku ua doropa**
O tla fetsa leng go apaya   'when will you finish cooking?'   **‖aeanea ku du toan |oaqn**
Ntsa eo e tla go loma   'that dog will bite you'   **n≠huinha toa ku n!ai a**
Mpho o tla reka dijo   'Mpho will buy food'   **Mpho ku du ka ‖a'ama 'msi**
Mosadi otla sala le bana   'the lady will remain with the kids'   **dshau ku !au |oa di'ibi**
Banna ba tla ya masimo   'men will go to the fields'   **n‖aqe ku ≠au ‖xara |hosi**
Lo tla emelela phakela   'you will leave in the morning'   **e!a ku g!hwe n!xa n!homo**

NEGATIVE
Ga ke na go reka   'I shall not buy'   **mi |oa ‖a'ama**
Ga o ketla o bona diphologolo 'you will not see any wild animals' **a |oa ho !hasa o tzigasi**
Lefa ba humile ga bakake ba go fa sepe 'although they a rich they will not give u' **xare ka se o ‖aihasi si |oa |'a ko tcin|ui**

FUTURE PERFECT
Ke tlaa bo ke rekile   'I shall have bought'   **o ka mi ‖a'ama**
O tlaabo o sa reka   'you shall not have bought'   **o ka a |oa ‖a'ama**
Re tlaabo re sa tsamaya fa a boa   'we shall not have gone when he returns'   **m!a oa u ko ka ha cee**

Baya   'place'   **n!ang**
Beilee 'placed'   **n!ang ka |'e**

Bina   'dance'   **djxani**

Gola   'grow'   **ǃ'am**

John o file Mpho dirinki   'John handed a drink to Mpho' **John ǀ'a Mpho ko dirinkie**

Mpho o file John dirinki   ' Mpho handed John a drink' **Mpho ǀ'a John ko dirinkie**

Mosetsana o file ngwana mpopi   'A girl handed the baby a toy'   **dshauma ǀ'a da'ama ko bopi**

Mosetsana o file mpopi ngwana   'A girl handed a toy to the baby'   **dshauma ǀ'a bopi ko da'ama**

Mpho o jesitse dikhasetomara tsa gagwe dijo tse di chip 'Mpho fed her customers cheap food'   **Mpho n≠ai 'm ǁa'ama kxaosi ko 'msa ǀoa ǀum ǀsoan**

Barutabana ba beile dibuka mo tafoleng ' The teachers kept books on the tables'   **nǃaro kxaosi ǁaoa ≠xanusi ko gǃa'm ǃ'o**

Ditau di mo nageng   'the lions are in the forest'   **nǃhai gea tzi**

Ntsa e jele nama   'the dog ate the meat'   **g≠huin 'm ǃha**

Mokgweetsi o beile beke mo koloing 'the driver placed the bag in the car'   **nǃari kxao nǃ'a ǀhao ko auto nǃang**

Beke e beilwe mo koloing ke mokgweetsi 'the bag was placed in the car by the driver'   **ǀhao nǃari kxao nǃ'a auto nǃang**

Baeng ba reketse banyana mpho 'the visitors bought the girls a gift'   **⟋keh kxaose ǁa'ama nǀang dshauhum ko xaro ǁ'antcia**

Appendix B: Naro tense and aspect markers

PRESENT TENSE   -a

Ke a reka   'I am buying'   **x'ámár ko**
Ba a bina   'they are dancing'   **ntcãa ne ko**
Re a ja   'we are eating'   **tc'õò ta ko**
O a apara   'she is dressing'   **hãas ko**
Se a fisa   'it is hot'   **dàos ko**
Le a baba   'it is chilli'   **tcg'aia iko**
E a lela   'it is crying'   **kg'ãès ko**
Ke reka masi   'I am buying milk'   **bìía ko x'ama**
Ba bina mmino wa setso 'they are dressing traditional dance' **kg'òó di cíía ne ko ntcãa**
Ba ja nama   'they are eating meat' **xg'òó ne ko kgóò**
O apara mosese 'she is putting on a dress' **qgáí sas ko hã**
Le baba thata 'it is too chilli'   **kaisase i ko tcg'ae**
E lela mo sakeng 'it is crying in the kraal' **xgaris koes ko kg'ãe**
Mosimane o fatsa dikgong 'the boy is chopping wood' **cóá ba ko c'eeean xg'ao**
Tonki e tsamaya mo tseleng   'the donkey is walking on the road' **donhi ba ko dàò q'oo**
                                                      koe qõò
Ngwana o tsamaya sentle   'the child walks well'   **cóá sa ko qãèse qõò**
Mosadi o gotsa molelo   the woman is kindling fire'   **khóè sa ko c'eea xhuu**
Banna ba lema tshimo   'men are ploughing the field' **khóè xu ko xhárà ba xhárà**

NEGATIVE

Ga ke reke   'I am not buying'   **x'ámá tama raa**
Ga a bine   'he is not dancing'   **ntcãà tama baa**
Ga o lwale   'You are not sick'   **tsàa tama si hãa**

USAGE

Ga ke itse   'I do not know'   **c'uua ra hãa**
Ga kere sepe   'I am not saying anything' **cúua guu gar kg'ui tama**
Nkwe ga eje bojang   'a tiger does not eat grass'   **q'óè ba dcãa tc'õo tama**
Ntate ga a dumele   'father does not agree'   **abo ba dtcòm tama**

HABITUAL USAGE

Ke tsamaya ka moso 'I go/will go tomorrow'   **q'uukar ko qõò**
Ditau di tsoma bosigo 'lions (habitually) hunt at night' **gàmá ne ko ntcùú ka qae**
O dirang?   'what are you doing/do u do'   **dùú si ko kúù**
Ke mooki 'I am a nurse-nurse being my normal occupation' **naka ra a**

PAST TENSE   **-ne**

ke ne ka reka borotho   'I bought bread'   **péré ner kò x'ama**

Ke rekile borotho   'I bought bread'   **péré ner x'ama hāa**

Mosimane one a fatsa dikgong 'the boy chopped wood' **cóá ba kó c'eean xg'ao**

Tonki ene e tsamaya mo tseleng 'the donkey was walking in the road' **donghi ba ncāa**

                             ko dàò ko qõo

Ngwana one a tsamaya sentle 'the child was walking well' **cóá ba ncāa ko qāese qõo**
Mosadi one a gotsa molelo   'the woman kindled fire' **khóè sa ncāa ko c'eean dxuu**

NEGATIVE
Ga ke aka ka reka   'I did not buy' **táár kò x'ama**
G re aka ra bona ope mo tseleng 'we did not see anyone on the way' **cui khóè ga ta ktáá**
                               bóò daò koe qõo
Ngwaga o o fetileng ga goaka ga fisa thata   'last year it wasn't very hot' **kaisase i kò**
                      daò tama ncêe nqāea kurim
Kene ka seka ka reka   'I did not buy' **táár ko x'ama**

PAST PERFECT
Ke ne ke rekile   'I had bought' **x'amar kò hāa**
Ke ne ke sa reka   'I had not bought' **x'amar tamar kò hāa**
Dipodi di ne di isitswe kwa morakeng 'the goats had been taken to the cattlepost' **piri ne**
                    ko polasing koe ùùea hāa
O ne o ile kae maabane   'where had you gone yesterday?' **ndaa tsi ko qõòa ncaa**
                      nqáém cámka

FUTURE   **-tla**
Kamoso re tla ya kwa toropong 'tomorrow we shall go to town' **q'uuka ta ko**
                        tropoan koe qõo

O tla fetsa leng go apaya 'when will you finish cooking' **ncàmá si gha tsáagua xg'ara**
Ntsa eo e tla go loma   'that dog will bite you' **eêm haghu ba gha kãa tsi**
Mpho o tla reka dijo   'Mpho will buy food' **Mpho sa gha tc'õoan x'ama**
Mosadi otla sala le bana 'the lady will remain with the kids' **khóè sa gha cóán cgoa qaù**
Banna ba tla ya masimo 'men will go to the fields' **khóè ba gha xhàràn koe qõo**
Lo tla emelela phakela 'you will leave in the morning' **ntcùú kg'ai cgoa tug ha xgoaba**

NEGATIVE
Ga ke na go reka 'I shall not buy' **cuiskar x'ama tite**
Ga o ketla o bona diphologolo 'you will not see any wild animals' **kg'óo -coan tsi**
                            cuiskaga hòò tite
Lefa ba humile ga bakake ba go fa sepe 'although they a rich they will not give u' **qguùa**
               nea igaba ne cuiskaga cúí guu ga máà tsi tite

FUTURE PERFECT
Ke tlaa bo ke rekile 'I shall have bought' **x'amar gha hāa**
O tlaabo o sa reka   'you shall not have bought' **x'ama tama tsi gha hāa**
Re tlaabo re sa tsamaya fa a boa 'we shall not have gone when he returns' qõoa ta **hāa**
              tite kābiseam gha hāa igaba

Baya 'place'   **tòó**
Beilee 'placed'   **tòóa**

Bina   'dance'   **ntcãa**
Gola   'grow'   **kai**
John o file Mpho dirinki 'John handed a drink to Mpho' **John ba Mpho ba drinkian**
                                        máà hãa
Mpho o file John dirinki ' Mpho handed John a drink' **Mpho ba John ba drinkian máà**
                                        hãa
Mosetsana o file ngwana mpopi 'A girl handed the baby a toy' **cóá sa ncãa cóá ba**
                                        bopi ba máà
Mosetsana o file mpopi ngwana 'A girl handed a toy to the baby' **cóá sa ncãa bopi**
                                        ba cóá ba máà
Mpho o jesitse dikhasetomara tsa gagwe dijo tse di chipi
'Mpho fed her customers cheap food' **Mpho sa gas di ne x'amakg'ao ne tc'õoan subu**
                                        marian tc'õo ka gua hãa

Barutabana ba beile dibuka mo tafoleng ' The teachers kept books on the tables' **xgaa-**
                                        xgaakgao nea tcgãean tafolem koe tòóa hãa
Ditau di mo nageng 'the lions are in the forest' **gàma ne qãaka hana hãa**
Ntsa e jele nama   'the dog ate the meat' **hãgu ba kg'óòan kg'óòa**
Mokgweetsi o beile beke mo koloing 'the driver placed the bag in the car' **chuikg'ao**
                                        ba tcobe sa kóné koe tòóa hãa
Beke e beilwe mo koloing ke mokgweetsi 'the bag was placed in the car by the driver' **tcobe sa**
kónés koe tòóèa chuikg'aom ka
Baeng ba reketse banyana mpho 'the visitors bought the girls a gift' **darakg'ao**
                                        nea cóá máàkuan di gúùan x'ama mana hãa

Appendix C: !Xóõ tense and aspect markers

PRESENT TENSE   -a

Ke a reka   'I am buying'   **nnba ‖ôma**
Ba a bina   'they are dancing'   **un ba ‖xaà**
Re a ja   'we are eating'   **een ba aà**
O a apara   'she is dressing'   **en ba saá**
Se a fisa   'it is hot'   **sin ka qhaé**
Le a baba   'it is chilli'   **nnba ‖swaâ**
E a lela   'it is crying'   **enba ‖aá**
Ke reka masi   'I am buying milk'   **nnba ‖xama ke qheè**
Ba bina mmino wa setso 'they are dressing traditional dance'   **ûnba xaé xhaè xakomà**
Ba ja nama   'they are eating meat'   **uxthan ba e qôhyè**
O apara mosese   'she is putting on a dress'   **xaba seé ‖aeé**
Le baba thata   'it is too chilli'   **nn iqaoku ka qmaeé**
E lela mo sakeng   'it is crying in the kraal'   **enba q‖aá ka |âmà**
Mosimane o fatsa dikgong   'the boy is chopping wood'   **ta ‖aâ qwanń ba ‖aà txaà**
Tonki e tsamaya mo tseleng   'the donkey is walking on the road' **toki ba qaa ke dao**
Ngwana o tsamaya sentle   'the child walks well' **|maa |hxam ba qaà**
Mosadi o gotsa molelo   the woman is kindling fire'   **ta-qkhe ba mwaa xaa**
Banna ba lema tshimo   'men are ploughing the field' **‖txaa ba qhala ke qhaalà**

NEGATIVE
Ga ke reke   'I am not buying'   **nn qwa ba ‖qhxamá**
Ga a bine   'he is not dancing'   **ehn qwa ba ‖txaá**
Ga o lwale   'You are not sick'   **an qxwa ba qhaama**

USAGE
Ga ke itse   'I do not know'   **‖xwaa |xdum**
Ga kere sepe   'I am not saying anything'   **n qhwa ba taná**
Nkwe ga eje bojang 'a tiger does not eat grass'   **quweén qhxwa baa a ‖thaá**
Ntate ga a dumele 'father does not agree'   **nn‖han qwxaba |qdom**

HABITUAL USAGE
Ke tsamaya ka moso 'I go/will go tomorrow'   **mahn khobe saa**
Ditau di tsoma bosigo 'lions (habitually) hunt at night'   **xhabateń txhoe ba qhae**
O dirang?   'what are you doing/do u do' **xaa ba ‖hale hè**
Ke mooki   'I am a nurse'   **nnka so |qxaaé**

PAST TENSE   -ne

ke ne ka reka borotho   'I bought bread'   **nan qhxama ke pare**

Ke rekile borotho   'I bought bread'   **n ‖kama ke pare xeé**

Mosimane one a fatsa dikgong   'the boy chopped wood'   **taqha ‖wa ka ba qhaaxhaa**

Tonki ene e tsamaya mo tseleng   'the donkey was walking in the road' **toki qham twa ‖ha ke dao thswè**

Ngwana one a tsamaya sentle   'the child was walking well' **qmaa ‖aam ‖kxam qhxaba |haá**

Mosadi one a gotsa molelo   'the woman kindled fire'   **taqae |ham qwa xaà**

NEGATIVE

Ga ke aka ka reka   'I did not buy'   **nnan qxwa xhamá**

G re aka ra bona ope mo tseleng   'we did not see anyone on the way'   **eh yan qwa xaou ke dao thwè**

Ngwaga o o fetileng ga goaka ga fisa thata   'last year it wasn't very hot'   **kuli te qxham txwa kin see qxham qwaka mqwaee**

Kene ka seka ka reka   'I did not buy'   **nan qxwa xhama**

PAST PERFECT

Ke ne ke rekile   'I had bought'   **nna q|hamń xhama**

Ke ne ke sa reka   'I had not bought'   **nan qhwa xhama**

Dipodi di ne di isitswe kwa moraken 'the goats had been taken to the cattlepost'   **pulute yan ka qau sa ka moraka**

O ne o ile kae maaban   'where had you gone yesterday?'   **xaa qham ha satse**

FUTURE

Kamoso re tla ya kwa toropong   'tomorrow we shall go to town'   **ke khobe yee xhaen ban sa ke toropo**

O tla fetsa leng go apaya   'when will you finish cooking?'   **xa ban doohee ‖tha ká ‖hasesa**

Ntsa eo e tla go loma   'that dog will bite you'   **qhee tabeke en ban seeyaá**

Mpho o tla reka dijo   'Mpho will buy food'   **Mpho ban xhama ka a saa**

Mosadi otla sala le bana   'the lady will remain with the kids'   **taqae ban qan que mwane**

Banna ba tla ya masimo   'men will go to the fields'   **‖xtaa ban sa ka qhama**

Lo tla emelela phakela   'you will leave in the morning'   **!u ban qam≠ee qlhobêê**

NEGATIVE

Ga ke na go reka   'I shall not buy'   **mhan tqwa txaa xhama**

Ga o ketla o bona diphologolo 'you will not see any wild animals'   **a ban tqwa txaa uhye manee**

Lefa ba humile ga bakake ba go fa sepe 'although they a rich they will not give u'   **ohei kone humatsê o ye tqwa tson hêê têê tââ**

FUTURE PERFECT

Ke tlaa bo ke rekile   'I shall have bought'   **mhan xhama txee**

O tlaabo o sa reka   'you shall not have bought'   **ehe ban qhwa xhama txee**

Re tlaabo re sa tsamaya fa a boa   'we shall not have gone when he returns'   **ehe qhae ban qwa sa txee ye se tsen**

Baya   'place'   **qxhoma qxhube**

Beilee 'placed'   **qxhoma txsee**

Bina   'dance'   **xaa**

Gola   'grow'   **kaee**

John o file Mpho dirinki   'John handed a drink to Mpho'   **Jhon yan qhae Mpho ke driki**

Mpho o file John dirinki   ' Mpho handed John a drink'   **Mpho yan qhae Jhon ke driki**

Mosetsana o file ngwana mpopi   'A girl handed the baby a toy'   **taqhae qwa qhae mwa ke mpope**

Mosetsana o file mpopi ngwana   'A girl handed a toy to the baby'   **taqhae qwa qhae mwa ka mpopi**

Mpho o jesitse dikhasetomara tsa gagwe dijo tse di chipi''Mpho fed her customers' cheap food'   **Mpho yan aa ku tu ka asa ta xe ta xe qaa xwee ka**

Barutabana ba beile dibuka mo tafoleng 'The teachers kept books on the tables'   **techaratea qxhwae buka texee ke tafole**

Ditau di mo nageng   'the lions are in the forest'   **‖xahaten qanti xee**

Ntsa e jele nama   'the dog ate the meat'   **qheén e e qmoye**

Mokgweetsi o beile beke mo koloing 'the driver placed the bag in the car'   **‖gali ‖gxaon xhobe be ke tse ka kuni tshwee**

Beke e beilwe mo koloing ke mokgweetsi 'the bag was placed in the car by the driver'
beken ka qxhomatse ka ‖gali ‖gxaao, ka kunitshwee

Baeng ba reketse banyana mpho 'the visitors bought the girls a gift'   **qxouno hamanin xhama**
ka a sat se xhou mwani

Appendix D: Ju/'hoansi verbal constructions

The following Setswana examples are going to be used as a guide.

The Passive
It is indicated by –wa and –iwa as in the examples below.

        Bona> bonwa> boniwa (be seen)   **ho ka |'e > ko ho ka |'e**
        Rata > ratwa > ratiwa (to be loved)   **are a |'e > are a |'e**
        Roka > rokwa > rokiwa (be sewn)   **g!ai ka |'e > g!ai ka |'e**
        Aga > agwa > agiwa (be built)   **kuru > kuru ka |'e**
        Senya > senngwa (be destroyed)   **kxuia > kxuia ka |'e**
        Loma > longwa > lomiwa (be bitten) **n!ai > n!ai ka |'e**
        Gama > gangwa > gamiwa (be milked)   **tsao > ka tsao**
        Rema > rengwa > remiwa (be chopped, cut down)   **ko ‖um > ‖um ka |'e**
        Tlhaba > tlhajwa > tlhabiwa (stabbed, slaughtered) **ko !ain > !ain ka |'e**
        Disa > disiwa (herd, look after)   **kodi > kodi ka |'e**
        Bitsa > bidiwa (called)   **!au > !au a |'e**
        Fa > fiwa (given)   **!'a > !'a a |'e**
        Ja > jewa (eaten)   **'m > 'm ka |'e**

Usage

        Go iwa kae? (Where are you going) **kore ku n|au ka |'e**
        Kgosi e lemelwa ke batho (People are ploughing for the chief) **ju ku ‖xara |'a ‖'iha**

        Tshimo e lengwa ke monna (the field is being ploughed by the man)   **n!hoa ku ‖xara**
                     ‖xara
        Morogo o jewa ke bagolo (the vegetables are to be eaten by the elders)   **g!hoe g!hoexa ju**
                 !ae n|e'a khoe ku'm
        O alafiwa ke ngaka ya Setswana (he is being helped by a traditional doctor)
                 n|um kxao o ≠aebe ma a n|'esi ku ≠uma
        Go tlhotswa batho ba le bararo (Three people are to be selected)   **ju n!a'an ≠'an sahm sih**
                 |'esi

The Applied
        Ja > jela (eat for)   **'m > 'maa / 'm |'an**
        Swa > swela (die for) **!ai >   !aia / !ai |'an**
        Aga > agela (build for)   **kuru > kuru |'an**
        Bala > balela (read, count for)   **n‖aqca > n‖aqca |'an**
        Apaya > apeela (cook for)   **n|oa > n|oa |'an**
        Tsaya > tseela (take for)   **gu > gu |'an**
        Suffix –etsa
        Senya > senyetsa (spoil for) **kxuia > kxuia |'an**
        Disa > disetsa (herd, look after on behalf of)   **khuci > khuci |'an**
        Ntsha > ntshetsa (take out, remove for)   **!xah > !xah na**
        Tlhatswa > tlhatswetsa (wash for)   **‖kaa > ‖kaa |'an**

Usage
        Ke rekela mme (I am buying for my mother)   **mi ‖a'ama |'a aia**
        E tlaa swela mo mosimeng (It will die in the hole) **ka ku !aia dom !ang**
        Re fudugela ko Otse (We are relocating to Otse)   **m ku !aun≠au Otse**
        Re tlaa fapogela kwa thabeng (we shall turn off towards the mountain)   **m!a ku ≠aqna**
        ≠au |xumsikoea
        E tlaa wela mo metsing (it will fall into the water) **ka ku n≠haoa g!u !xa'a**
        Re disetsa kgosi dikgomo (we are herding cattle for the chief)   **m kuri |'a ‖aixa ko**
           gumi

The Causative

To show causatuion, the verb **n≠ai** 'cause/make' is used as the first verb.

Mí n≠ai │'hóm mí tjù (I cause be pretty my house)

It is common for the second verb in such constructions to have transitive suffix e.g. farma kxàòsì n≠ai ≠háíá gúmí (farmers cause be many cattle). However, it cannot be predicted from the second verb itself whether it will take the transitive suffix. Naturally though, when a second noun phrase follows a serial verb with n≠ai , then the transitive suffix will always be used, plus the transitive particle **kò** preceding the second noun phrase e.g. dshàù n≠ai 'mà ha dà'ábí kò mári

       (Woman causes eat her child kò mealie meal)

       (The woman fed her child mealie meal)

The use of causative n≠ai is particularly useful with the so-called 'descriptive verbs' e.g.

Descriptive verb	Causative Form	
g│aoh 'be strong'	n≠ai g│aoh	strengthen, made strong
!òmà be short	n≠ai !òmà	shorten, make short
n!a'a'n be big	n≠ai n!a'a'n	enlarge, make big
n!o'ò be fast	n≠ai n!o'òà	cause to be quick

The verb dù

Dù when used alone means do or make.As the first verb in a serial construction, **dù** can take the place of n≠ai in many causative constructions and like n≠ai sometimes causes the second verb to take the transitive suffix –**a.**

Bòhá dù │'hùrù ùtò !óm (nail make be punctured car wheel)

The nail caused the wheel to be punctured.

Dù n!o'òà da'mà (make hurry a child)

Make the child be quick (hurry the child up)

Dù g!à'ín droma (make full drum)

Make the drum full (fill up the drum)

      Suffix –isa

      Loma > lomisa (cause to bite)   **n!ai > n≠ai n! aia**

      Reka > rekisa (cause to buy, sell)   **║'ama > n ≠ai ║'ama**

      Bala > badisa (cause to read) **n║aqca > n≠ai n║aqca**

      Tshega > tshegisa (cause to laugh) **tsih > n≠ai tsih**

      Loga > logisa (cause to knit, weave) **g!aih > n≠ai g!aih**

      Kwala > kwadisa (cause to write)   **|ore > n≠ai |ore**

      Boifa > boifisa (frighten)   **koqa > n≠ai koqa**

Suffix –ya

      Tsena > tsenya (cause to go in, put in)   **g!ama > !'u**

      Fena > fenya (conquer)   **║kaakhoe**

      Kopana > kopanya (cause to meet, join) **║ka║kaakhoe**

      Lekana > lekanya (make equal, measure) **≠'aun > n≠ai ≠'aun**

Usage

      Monna yo o a re tshegisa (this man makes us laugh) **n!hoan he ku n≠ai tsimh**

      Ke tla a tsenya mo kgamelong (I shall put it in the bucket) **mi ku |oa horo n!ang**

      Ba tsile go rekisa dipodi (they have come to sell the goats) **se tsi ku n≠ai ║a'ama**

      O kwadisa teko ka moso (he is administering a test tomorrow)   **parisi n!ohkoma !'o ha n≠ai |oiea duse**

      Mpho o rekisa Neo kobo (Mpho makes Neo buy a blanket) **Mpho n≠ai ║a'ama Neo ko tji!ah**

      Ke lekanya mosese (I am fitting a dress)   **mi ku duse !xai**

The Reciprocal

      Rata > ratana (love each other)   **are> are khoe**

Ruta > rutana (teach each other)   **n!aheoa> n!aheoa khoe**
Botsa > botsana (ask each other)   **tsihtsa'a > tsihtsa'a khoe**
Lwa > lwana (fight each other)   **‖'an > ‖'an khoe**
Tshwana > (resemble, be like each other)   **khuih > khuih khoe**
Kopana > (meet one another)   **‖kaea > ‖kaea khoe**
Tlhakana > (mix with each other)   **‖kae > ‖kae‖kae khoe**
Usage
Re a dumalana 'we agree with each other'   **mh zana khoe**
Monna le mosadi ba a ratana 'the man & the woman love each other'   **!'hoan sa dshau ku acea khoe**
Phokoje le ntsa di a tshwana 'the dog & the jackal resemble each other'   **|acih sa ≠huihn kuihwa khoe**
Batho ba a bolaana 'People kill each other'   **ju ku !'oa khoe**
Baithuti ba botsana ka tlhatlhobo 'students ask each other about the exam' **di'ibi ku tsihtsa'a khoe ko exams**
Re a lekana ka maemo (we occupy the same position)   **mh tsa ‖koa kuihwa khoe**

Appendix E: Naro verbal constructions

The following Setswana examples are going to be used as a guide.

The Passive

It is indicated by –wa and –iwa as in the examples below.

Bona> bonwa> boniwa (be seen)	**bóò> bóòè > bóòèa**
Rata > ratwa > ratiwa (to be loved)	**ncàm > ncàmè > ncàmèa**
Roka > rokwa > rokiwa (be sewn)	**qgãè > qgãè > qgãèa**
Aga > agwa > agiwa (be built)	**tshào > tshàoèa > tshãoèa**
Senya > senngwa (be destroyed)	**kobe > kobea**
Loma > longwa > lomiwa (be bitten)	**kaa > kaáè > kaáèa**
Gama > gangwa > gamiwa (be milked)	**ts'ào > ts'àoè > ts'àoèa**
Rema > rengwa > remiwa (cut down)	**xg'ao > xg'aoè > xg'aoèa**
Bopa > botswa > bopiwa (be moulded)	**xom > xomè > xomèa**
Gapa > gatswa > gapiwa (taken by force)	**xhùu > xhùuè > xhùuèa**
Tlhaba > tlhajwa > tlhabiwa (stabbed)	**qhàe > qhàeè > qhàèa**
Tlhopha > tlhotshwa > tlhophiwa (be selected)	**nxaratcg'òó>nxaratcg'òóè>èa**
Alafa > alaswa > alafiwa (be cured, healed)	**tsóò > tsóòè > tsóòèa**
Lefa > leswa > lefiwa (paid, compensated)	**suruta > surutaè > surutaè**
Disa > disiwa (herd, look after)	**kòre > kòreè > kòreèa**
Besa > besiwa (roasted, baked)	**tcõo > tcõoè > tcõoèa**
Tshasa > tshasiwa (smear)	**tcgàu > tcgàuè è**
Ntsha > ntshiwa (taken out, removed)	**tcg'òó > tcg'òóè**
Bontsha > bontshiwa (shown)	**x'ai > x'aiè**
Bitsa > bidiwa (called)	**tcíí > tcííèa**
Botsa > bodiwa (asked)	**tẽe > tẽeè/ tẽeèa**
Oketsa > okediwa (increased)	**caù > caùè / caùèa**
Tlatsa > tladiwa (filled up)	**cg'oe > cg'oe**
Fa > fiwa (given)	**máà > máàè/ máàèa**
Ja > jewa (eaten)	**tc'õó > tc'õóè/ tc'õóè**
Kgwa > kgwiwa (spit out)	**cg'õé > cg'õéè**
Nwa > nowa (drank)	**kg'áà > kg'áàè**
Tla > tsiwa (came)	**hàà > hàaè**
Ya > iwa (went, gone to)	**síí > sííè**
Lwa > lowa (fought)	**x'áà > x'áàè**

Usage

Go iwa kae? (Where are you going)   **nda koe i ko qõòè**

Kgosi e lemelwa ke batho (People are ploughing for the chief)   **x'aiga ba ko   khóè ne
ka xháràmááe**

Go jewa nama (there is eating of meat)   **kg'òó ne ko kg'òóè**

Mosadi o tlhabiwa ke setlhabi (the lady has some pain)   **khóè sa ko gum ka qhàè**

Tshimo e lengwa ke monna (the field is being ploughed by the man) **xhárà ba
Ko khóèm ka xharaè**

Setlhare se rengwa ka selepe (the tree is cut by an axe)   **hii sa ko boos ka xg'aoè**

Letswai le rekwa ko Zambia (salt is bought at Zambia)   **tabe ne ko Zambia koe x'ámaè**

Morogo o jewa ke bagolo (the vegetables are to be eaten by the elders**) tcg'ana
ne ko kaía ne khóè ne ka tc'õòe**

Tanka e tladiwa ke batho ba babedi (the tank is filled up by two people)   **tanka ba ko khóè
tsara ka cg'oe- cgoè**

O alafiwa ke ngaka ya Setswana (he is being helped by a traditional doctor)
tsóò kg'aom tcebe dim kam ko tsóòè

Go tlhotswa batho ba le bararo (Three people are to be selected) **nqõana khóèa ne ko qaotcg'óòè**

The Applied
Suffix –ela

Ja > jela (eat for)   **tcõò > tcõòcgae / tcõòamáá**
Swa > swela (die for)   **xõó > xõóamáá**
Aga > agela (build for)   **tshào > tshàoamáá**
Utlwa > utlwela (hear for)   **kóm > kómamáá**
Bala > balela (read, count for)   **nxara > nxaramáá**
Tshaba > tshabela (fear, flee for)   **nxãa > nxãamáá**
Apaya > apeela (cook for)   **tsãagu > tsãagumáá**
Tsaya > tseela (take for)   **séè > séèmáá**
Naya > neela (give to, hand over to) **máàmáá**

Suffix –etsa

Senya > senyetsa (spoil for, damage on behalf of)   **kobe > kobeamáá**
Tshwenya > tshwenyetsa (annoy, bother)   **xgáé > xgáéamáá**
Disa > disetsa (herd, look after on behalf of)   **kòre > kòre máá**
Ntsha > ntshetsa (take out, remove for)   **tc'òó > tc'òóamáá**
Tlhatswa > tlhatswetsa (wash for)   **xg'aa > xg'aramáá**
Utswa > utswetsa (steal for)   **ts'ãa > ts'ãamáá**
Latswa > latswetsa (lick for)   **tshãa > tshãamáá**

Usage

Ke rekela mme (I am buying for my mother)**a I sar ko x'ama máá**
E tlaa swela mo mosimeng (It will die in the hole) **haem q'oo koem gha x'óò**
Re fudugela ko Otse (We are relocating to Otse)   **Otse koe ta ko tòè**
Re tlaa fapogela kwa thabeng (we shall turn off towards the mountain)   **xàbim koe tag ha nxãa**
E tlaa wela mo metsing (it will fall into the water) **tshàa q'oo koe i gha cgaea tcãà**
Re disetsa kgosi dikgomo (we are herding cattle for the chief) **x'aiga bat a ko ghòean kòrè máá**
Mme o re tlhatswetsa diaparo (mother washes our clothes) **A isa ko qgaian xg'ara máá ta a**
O mpiletsa eng? (Why are you calling me?) **dùú tsi ko tciiea máá te**

The Causative
Suffix –isa

Loma > lomisa (cause to bite)   **kaa > kaakagu**
Reka > rekisa (cause to buy, sell)   **x'áma > x'ámakagu**
Huma > humisa (enrich)   **qgùu > qgùukagu**
Tlhaba > tlhabisa (cause to stab)   **qhàè > qhàèkagu**
Bala > badisa (cause to read)   **nxara > nxakagu**
Bolaya > bolaisa (cause to kill)   **cg'õo > cg'õokagu**
Tsamaya > tsamaisa (cause to go, walk)   **qõò > qõòkagu**
Tshega > tshegisa (cause to laugh)   **kg'ãe > kg'ãekagu**
Aga > agisa (cause to build)   **tshao > tshaokagu**
Loga > logisa (cause to knit, weave) **qgãè > qgãèkagu**
Kwala > kwadisa (cause to write)   **góá > góákagu**
Nyala > nyadisa (cause to marry)   **séè > séèkagu**
Tlhalefa > tlhalefisa (make wise)   **tc'ẽega > tc'ẽegakagu**
Boifa > boifisa (frighten)   **q'áò > q'áòkagu**
Leofa > leofisa (cause to sin)   **chibi > chibikagu**
Tlhatsa > tlhatsisa (cause to vomit)   **cgõé > cgõékagu**

Suffix –ya

Tsena > tsenya (cause to go in, put in) **tcãà > tcãàè**
Fena > fenya (conquer) **tàà > tàà**
Kopana > kopanya (cause to meet, join) **xg'ae > xg'ae- xg'ae**
Lekana > lekanya (make equal, measure) **tc'ao > tc'ao - tc'ao**

Usage

Monna yo o a re tshegisa (this man makes us laugh) **ncẽem khóè ba ko kg'aekagu ta a**
Ke tla a tsenya mo kgamelong (I shall put it in the bucket) **emeres koer gha tcãa me**
Ba tsile go rekisa dipodi (they have come to sell the goats) **hàà ne ko pirian xàmagu**
O kwadisa teko ka moso (he is administering a test tomorrow) **kúrú bóòku sam ko q'uuka hàà gòàkagu**
Ke batla go humisa batsadi bame (I want to make my parents rich) **tiri xõòa ne qgòòkagu kg'oana hãa**
Mpho o rekisa Neo kobo (Mpho makes Neo buy a blanket) **Mpho sa ko Neo sa koa ba xamakagu**
Ke na le tumelo gore ba tla fenya (I trust that they will win) **dtcòma ner úúa hãa tàa ne gha sa**

Ke lekanya mosese (I am fitting a dress) **qgáí sar ko tcao tcaose**
Ntlo e e a boifisa (this house if frightening) **nquum ncée ba ko q'aokagu**
Ke tlaa mo tlhalefisa (I will make her wise) **qãakagu mer gha**
O tlaa mo lomisa ntsa (You will make the dog bite him) **haghu ba tsi gha kãakagu me**

The Reciprocal

Rata > ratana (love each other) **ncàm > ncàmku**
Ruta > rutana (teach each other) **xgaa-xgaa > xgaa-xgaaku**
Bitsa > bitsana (call each other) **tcíí > tcííku**
Botsa > botsana (ask each other) **tẽe > tẽeku**
Utlwa > utlwana (hear each other) **kóm > kómku**
Lwa > lwana (fight each other) **x'ãa > x'ãaku**
Bolaya > bolaana (kill each other) **cg'õo > cg'õoku**
Tsaya > tsaana (take one another, marry one another) **séè > séèku**
Dumela > dumalana (agree with each other) **dtcòm > dtcòmku**
Atamela > atamelana (approach each other) **cúù- cúùses > cúù- cúùsecgaeku**
Tshwana > (resemble, be like each other) **cuitaiku**
Kopana > (meet one another) **xg'ae > xg'ae cgoaku**
Tlhakana > (mix with each other) **tcg'omeku**
Lekana > (be equal to each other) **cuitanooku**

Usage

Re a dumalana 'we agree with each other' **dtcomku ta ko**
Monna le mosadi ba a ratana 'the man & the woman love each other' **khóè ba hẽé naka khóè sa hẽéthẽé khara ncàmkua**
Phokoje le ntsa di a tshwana 'the dog & the jackal resemble each other' **cirri ba hẽé naka haghu ba hẽéthẽéa cuita ii**
Batho ba a bolaana 'People kill each other' **khóè ne ko cg'õoku**
Basadi ba jana ka meno 'women are quarreling' **khóè sara ko meeku**
Ba tsaana ka labone (they are getting married on Thursday) **labone ka khara ko séèku**
Ba rutana go bua sekgoa 'they teach each other to speak English' **x'aà sa kg'uia ne, ne ko xgaa-xgaaku**
Baithuti ba botsana ka tlhatlhobo 'students ask each other about the exam' **xgaa-xgaasekg'ao ne ko tẽèku kúrú bóòkuan ga ne dika**
O tshwana le mmaagwe (she looks like her mother) **xõòs khamas ii**
Ke kopana le ene ka moso (I am meeting him tomorrow) **quukar gha xg'ae cgoa me**
Re a lekana ka maemo (we occupy the same position) **tẽè q'ooan ka tsam cui ta no**

Appendix F: !Xóõ verbal constructions

The following Setswana examples are going to be used as a guide.

The Passive

It is indicated by –wa and –iwa as in the examples below.

      Bona> bonwa> boniwa (be seen)   **xaa > kaxaa > ka xaaxe**
      Rata > ratwa > ratiwa (to be loved)   **xhaam . ka xhaamaka > ka xhaamakaxee**
      Roka > rokwa > rokiwa (be sewn)   **qxowaa > ka qxowaa > ka qxowaaxee**
      Aga > agwa > agiwa (be built)   **‖txhaa > ka ‖txhaa > ka ‖txhaaxee**
      Loma > longwa > lomiwa (be bitten) **seé > ka seé > ka seé xee**
      Gama > gangwa > gamiwa (be milked) **‖dhowe > ka ‖dhowe> ka ‖dhowexee**
      Rema > rengwa > remiwa (be chopped, cut down)   **‖aa > ka ‖aa> ba ka ‖aa**
      Tlhaba > tlhajwa > tlhabiwa (slaughtered)   **‖hom>ka ‖hom> ka ‖homxee**
      Disa > disiwa (herd, look after)   **qghole> ka qgholeka**
      Besa > besiwa (roasted, baked)   **‖thaee> ka ‖thaee xee**
      Ntsha > ntshiwa (taken out, removed)   **nhaale> ka nhaala**
      Bitsa > bidiwa (called)   **qee> ka qee**
      Botsa > bodiwa (asked)   **qmwaee > ka qwmawaee**
      Tlatsa > tladiwa (filled up)   **txolleè > ka txwala xee**
      Fa > fiwa (given)   **qhaa > ka qhaa**
      Ja > jewa (eaten)   **aah > ka aah**
      Nwa > nowa (drank)   **‖aah > ka ‖aah**

Usage

      Go iwa kae? (Where are you going?)   **xoo ha qhaa**
      Kgosi e lemelwa ke batho (People are ploughing for the chief)   **‖gahan ba ka qhala ka xhaa ku tuo**
      Go jewa nama (there is eating of meat)   **qho ye ken ba ka aa**
      Tshimo e lengwa ke monna (the field is being ploughed by the man)   **qhala′n ba ka qhalaka ku tuo**
      Monna o rema setlhare   (the man is cutting the tree) **uoye′n ba ka qxhaa ka xhao**
      Morogo o jewa ke bagolo (the vegetables are to be eaten by the elders)   **‖tlan ba ka a a ke x‖am**

The Applied

Suffix –ela

      Ja > jela (eat for)   **aa > aa txe**
      Swa > swela (die for) **txa . txa txen**
      Aga > agela (build for)   **txhaa > txhaa xe**
      Utlwa > utlwela (hear for)   **thaa > thaa xe**
      Apaya > apeela (cook for)   **|xaasee> |xaasee xe**
      Tsaya > tseela (take for)   **q|hao > q|hao xe**

Suffix –etsa

      Senya > senyetsa (spoil for) **‖uli > ‖uli xe**
      Tshwenya > tshwenyetsa (annoy, bother)   **‖qae > ‖qae xen**
      Disa > disetsa (herd, look after on behalf of) |gqule > |gqule xen
      Tlhatswa > tlhatswetsa (wash for)   **‖dhula > ‖dhula xe**
      Utswa > utswetsa (steal for) **tsxhaa > tsxhaa xe**

      Usage

      Ke rekela mme (I am buying for my mother)**xham xen ‖qae**
      E tlaa swela mo mosimeng (It will die in the hole) **ehn ba xaa ke ‖juwe**
      Re fudugela ko Otse (We are relocating to Otse) **yee ‖ae′n ba t|xhaa sa ke Otse**
      Mme o re tlhatswetsa diaparo (mother washes our clothes) **n ‖qae′n ba |dona thene xeé**
      O mpiletsa eng? (Why are you calling me?) **xaa ba qeeken xe he**

The Causative
Suffix –isa

Loma > lomisa (cause to bite)**see > see-seete**
Reka > rekisa (cause to buy, sell)   **xhama > xhama-xhamate**
Bolaya > bolaisa (cause to kill)   **|qhae > |qhae-|qhaete**
Tsamaya > tsamaisa (cause to go, walk)   **qaa > qaa-qaate**
Kwala > kwadisa (cause to write)   **‖khom > ‖khom - ‖khomte**
Nyala > nyadisa (cause to marry)   **halu > halu-halute**
Boifa > boifisa (frighten)   **txao > txao-txaote**
Suffix –ya
Tsena > tsenya (cause to go in, put in)   **|hulu > |hulu- |hulute**
Kopana > kopanya (cause to meet, join)   **x|hae> x|hae- x|haete**
Lekana > lekanya (make equal, measure)   **qao> qao- qaote**

Usage

Monna yo o a re tshegisa (this man makes us laugh) **tagha ta′n ba hale xhae ba ‖gae**
Ke tla a tsenya mo kgamelong (I shall put it in the bucket)   **man t|am ke kemere**
Ba tsile go rekisa dipodi (they have come to sell the goats) **u x|hae xa ba xhama ka ‖aesu**
        purute
O kwadisa teko ka moso (he is administering a test tomorrow)   **e khobe ba ‖khobe teste**
Ke na le tumelo gore ba tla fenya (I trust that they will win)**qabe she bu q|ae ban |daa**
Ntlo e e a boifisa (this house if frightening)   **x|hae te ke′n ka ‖xaota xe**

The Reciprocal
Suffix –ana

Rata > ratana (love each other)   **xham> xham ka ‖hae**
Ruta > rutana (teach each other)   **qhou> qhou ku ‖hae**
Bitsa > bitsana (call each other)   **qee> qee ku ‖hae**
Botsa > botsana (ask each other)   **qmae> qmae ku ‖hae**
Utlwa > utlwana (hear each other)   **‖thaa> ‖thaa ‖hae**
Tsaya > tsaana (marry one another)   **‖aao> halu ‖hae**
Dumela > dumalana (agree with each other) **‖dom> ‖dom ku ‖hae**

Usage

Re a dumalana 'we agree with each other'   **qee**n ba **‖dom ke qhee ‖hae**
Monna le mosadi ba a ratana 'the man & the woman love each other'   **ta‖ga ‖na**
taq|hae ba ana xeya
Phokoje le ntsa di a tshwana 'the dog & the jackal resemble each other'   **qaose ‖nee qhee**
                ‖ qom xhwa ‖toba qom ‖hae
Batho ba a bolaana 'People kill each other' **tun ba ‖kha yu ‖hae**
Basadi ba jana ka meno 'women are quarreling'   **tsxaa baa a ‖hae ka |hane**
Ba rutana go bua sekgoa 'they teach each other to speak English' **unba qhoo ku ta ka stuu**
O tshwana le mmaagwe (she looks like her mother) **ehn ‖qobe ‖ae**
Ke kopana le ene ka moso (I am meeting him tomorrow) **man khobe ‖xhai qe e**
Re a lekana ka maemo (we occupy the same position)   **qaose ‖nee qhee qom ‖tubu**
 ‖hae

Appendix G: Pictures of assistants

Below are the pictures of research assistants in Naro and !Xóõ.

She is one of the oldest people amongst the Naro in D'kar. She is very knowledgeable in the language although she cannot write.

Marea Cam-She is one of the first people in D'kar to be trained by Hessel Visser to write in Naro. She still works under the Naro Literacy Project translating the bible from English to Naro, translating narratives from English to Naro and writing the calendar in Naro etc.

Mike-He is one of the first people in D'kar to be trained by Hesel Visser to write in Naro. He still works under the Naro Literacy Project translating materials such as short stories, songs, bible etc. from English to Naro.

Coex'ae- She was one of the first people in D'kar to be trained by Hessel Visser to write in Naro. She does not work under the Naro project anymore. She knows the language very well and can write it very well.

Gustel Heinz-He is from Bere and is the most knowledgeable !Xóõ speaker, he writes well in his own language and he is also very fluent in English. He worked with the late Anthony Traill on a number of projects. Most people who do research in !Xóõ engage him as a research assistant.

These are some of the old people in Bere. They know !Xóõ very well but cannot write.

These are the !Xóó assistants from Kacgae. On the far left is Thamae, second from the left is Service, the third one is Xhomate and lastly Wire.The first three, starting from the left, do not know how to write in their own language, but are very knowledgeable. Wire knows how to write in his language perfectly well.