CHAPTER ONE

INTRODUCTION

1.0 Overview

One way to evaluate a person's progress in learning a new language is to measure their vocabulary: how many words do they know? But it does not make sense to ask, "How many sentences does this person know?"

Vocabulary items (words, idioms, etc.) are typically learned one at a time, but we do not "learn" sentences that way. Rather than memorizing a large inventory of sentences, speakers create sentences as needed. They are able to do this because they "know" the rules of the language. By using these rules, even a person who knew only a limited number of words could potentially produce an extremely large number of sentences.

Now when we say that a speaker of Daju (or any language) "knows" the rules for forming sentences in that language, we do not mean that the person is aware of this knowledge. We need to distinguish between two different kinds of rules. There are some rules about using language that must be consciously learned, the kind of rules we often learn in school. Rules of this kind are called prescriptive rules: rules which define a standard form of the language, and which some authority must explicitly state for the benefit of other speakers; for example Chomsky's TG introduces this two rules as follow: Prescriptive/ Normative Rules: there are some points that distinctive the prescriptive rule from descriptive rules as follow:

a. Avoid ending sentences with prepositions
b. The difference between 'owing' and 'due to'
c. Where to use 'I' or 'me'
d. Other traditional rules derived from other classical languages

While descriptive rules distinctive from prescriptive rules as follow:

a. Descriptive rules based on observations and inductive rules what happens in language (e.g. He makes... I make….)

The rules we are interested here, are those which the native speaker is usually not aware of and the kind of knowledge about the language that children learn naturally and unconsciously from their parents and other members of their speech community; whether they attend school or not.

 All languages, whether standardized or not, have rules of this kind, and these rules constitute the grammar of the language. Our approach to the study of Daju's syntax will be descriptive rather than prescriptive: our primary goal will be to observe, describe, and analyze what speakers of a Daju language actually say, rather than trying to tell them what they should or should not say.

We have proposed that there are rules in Daju concerning the sequence of sounds within a word. Similarly there are rules for the arrangement of words within a sentence, the arrangement of "meaningful elements" within a word, etc. The term syntax is often used to refer to the complete set of rules needed to produce all the regular patterns in a given language. Another, way the term syntax is sometimes used means roughly "all the structural properties of the language except word order structure (typology)," i.e. the structure of words, phrases, sentences, texts, etc. This thesis is concerned with grammar in both senses. It is intended to analyze and describe the word and sentence patterns of Daju language by formulating a set of rules which account for those patterns.

An important design feature of human language is the fact that larger units are composed of smaller units, and that the arrangement of these smaller units is significant. For example, a sentence is not just a long series of speech sounds; it is composed of words and phrases, which must be arranged in a certain way in order to achieve the speaker's goals. Similarly, sentence (in many languages) may be composed of smaller units, each of which has its own meaning, and which must be

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arranged in a particular way. In order to analyze the structure of a word or sentence, we need to identify the smaller parts from which it is formed and the patterns that determine how these parts should be arranged.

1.1 Background information

The term Daju or Dadjo in French is the most widely used name the Daju people use it to refer to themselves linguistically "bike" means Daju in Daju language. Historically the name comes from Ahmad el-Daj as they believe. The Daju People are a group of several distinct ethnicities speaking related languages living on both sides of the Chad-Sudan border and in the Nuba Mountains; separated by distance and speaking different dialects.

The Daju people have come from the mountains of Fazoghli as they claim; South of Sennar and settled in a long belt stretching from South Kurdufan westward through Darfur and into Chad. It is assumed that, Daju came originally from the North of Africa, having been expelled from that part of Africa to Darfur. The traditional locations of the Daju were at one time the predominant race in central Darfur, the earliest known founders of a monarchy there, and that they were supplanted by the Tunjur about the sixteenth century. Another poient of view they came from the east and were joined in Darfur by the African Beygo from the South-east and that the Daju borrowed the language of the Beygo.

Another point of view, that Daju has lived for at least a century in the West; their settlements ranged from Tagali in Sudan to Wadai in chad and tell stories that indicate they came from the East (e.g. Gebel Qedir). They first attained power during the thirteen to fifteenth century in Darfur. From the rise of the Tungur until the present day their central point was in Darfur and kordofan, and the most likely the Kordofan state is their original places.

Arkell,A.J. (1951:2) believed that the Daju came from the North, so they were originally a riverain people or belongs to kushian people who were living near

Marawi, Jabal al-Barkal, Shendi; this argue may be near to the right because all three words were mentioned in Daju vocabularies; for example 'mərɑwɛ' means "Tətal", 'ɟæbɪr kəlgɛ' " mountain of God", and 'ʃndə' stands for "sheep". Eventually they were brought to Darfur by Ahmad Al-Daj who settled at Meeri in Marra Mountain and then attacked the Furoge or Fertit and occupied their area. While Balfour-Paul (1955) claimed that the Daju were indigenous stock and owed their empire to the mastery of a group of immigrants of a higher culture. So, he believes that the immigrants came from the East.Their total population in Sudan unknown, but their population in Chad and Sudan reaches approximately 350,000 according to Gordon's (2005) Daju population figures are based upon the 1993 census and on data from SIL Chad.

1.1.1. Genetic classification of Daju language

Daju language is one of the South Kordofan state languages which are the eastern Sudanic branch of the Nilo-Saharan family. The Daju speaking people and tribe are scattered over a large area between Kordofan, Dar fur and Chat. There are at least nine settlements where speakers of Daju language related or other Dialect form their own communities' independent from each other. According to their oral traditions and historical records; the Daju have originally formed one single community with a language continuum. Judging from the partly, great resemblances.

Tucker and Bryan (1956:59) claimed that Daju divided into two groups according to their dialects. The western Daju included Mongo, Sila, Nyala, Bago, Lagawa and Nyigoligole; while the eastern group included Laggori and Shatt. The main differences between the two groups are found in phonetics and in their plural formation. Western Daju has many singular suffixes but only one plural suffix (-ge, -ke), while Eastern Daju has many singular and plural suffixes.

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Joseph, G. (1963) classified the languages of Africa to families which included the list of Nilo-Saharan languages in it there is a branch of Daju group as shown in figure (1):

Nilo-Saharan

\\

Shari- Nile branch

\\

Eastern Sudanic branch

\\
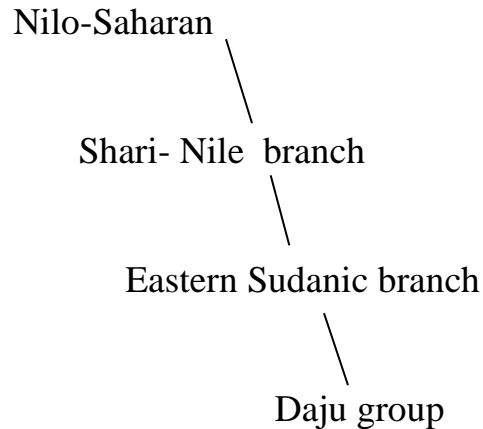
Daju group

Figure,(1.1) Daju group.

Joseph Greenberg (1963) classified the Kordofanian languages under five groups: Heiban group, Talodi group, Rashad group, Kadugli group and Katla –group these names are based on their geographical centers; proposed by Thilo Schoenberg (1981a) and differ from names used in previous literature. The Kadugli Group was earlier classified by Greenberg (1955,1971) as part of Kordofanian but removed from that relationship by Schoenberg (1981a) and is currently considered probably part of Nilo-Saharan. The Kordofanian sub-groups are located in the southern and eastern areas of the Nuba Mountains. The Kadugli Group is located in the south east central area near Kadugli, in it there is a Daju group so called Lagawa. The rest of the Nuba languages are classified as part of a major sub-group of Nilo-Saharan called Eastern   Sudanic; that Daju group belongs, see appendix (1.1).

Bender (1996) proposes four branches of Nilo-Saharan: (A) Songhay, (B) Saharan, (K) Kuliak, called 'Outliers', and the rest, called 'Satellite–Core', which he further subdivides as indicated in figure (1.2) appendix (3): in this division Daju group belonged to 'satellite-core' subdivides of phoneme /en/ which includes surmic,Daju,Jebel,Temein,Nilotic.

Bender (2005:1) later divides Nilo-Saharan into six families: Songay, Saharan, Kuliak, Fur, Central Sudanic, and Eastern Sudanic. He further divides Eastern Sudanic into the 'En' and 'Ek' based on the first person singular independent pronouns having *n* or *k* that *En* and *Ek* groups. Daju is part of the 'En' group along with Surma, Jebel, Temein, and Nilotic; while another group includes Nubian, Nera, Nyima and Tama. One of the features that are especially strong in the 'En' group is the presence of *n/g* in the singular and plural affixes Bender (2000).This division differs from Bender's (1989) earlier classification dividing Eastern Sudanic into four groups based upon geographic proximity. The 'Ek' group is based upon retention of the velar element 'k' from the Nilo-Saharan first person singular pronoun. The 'En' group represents an innovation of the element *'n'* in the first person singular pronoun. Bender (2005:1) notes that the inclusion of Temein in *'En'* is uncertain.

Thelwall, (1981:168) referred to a now extinct Daju group of Bego which he classified them according to their language as being part of Nyala. The Daju of el-Dar el-Kabira and Lagawa are much more closely related linguistically to the Nyala and then to the Dar Sila Daju. This makes the linguists think that there were two periods of Daju movement east, the first by the Shatt and Liguri and the second perhaps related to the expansion and dominance by the South Darfur Daju, see appendix (1.3) that refers to Daju groups.

In spite of the great history and rich oral literature of the Daju community, the Daju language has not been fully standardized; it does not have a well-established script. Moreover, apart from the works of Thelwall (1981), Greenberg (1963), Abbakar (2000) and Suleiman, I. (2014), there has been no systematic survey on the grammar of the Daju language. Hence, there is a lot in Daju that opens up for further investigation.

1.2 Statements of the Research Problem

A descriptively adequate theory of grammar is one, which is valid for the description of the grammar of each and every human language. The explanatory adequacy, on the other hand, relates to the concern, with which the theory of grammar goes beyond description and raises questions, such as why do human languages have the grammars. A theory of grammar is, thus, explanatorily adequate if it explains why should the grammars of human languages have the properties they do. After all, a theory of grammar counts as universal by generalizing from the grammars of particular languages principles those are applicable to all human languages. In pursuit of devising an adequate theory of universal grammar, generative grammarians have developed a set of theories of which principles and parameters is so adequately descriptive and explanatory that it has contributed for further linguistic research within generative grammar and other approaches as well. The present study attempts to examine the syntax of the Daju phrase structure, with respect to the type and arrangement of elements; then examined in terms of Greenberg's (1966); language universal. The study is then basically concerned with the description of Daju sentences structure; in terms of Daju phrases and the inflectional categories involved in their structure within the framework of generative grammar. Using principles and parameters theory accounts, the study will analyze Daju phrases, such as noun phrases, verb phrases, and sentences. Such syntactic units will be seen as being built out of head elements (projections of head words) that merge with potential complements, adjuncts, and specifier to form maximum projections. Such analysis will reveal what types of elements that function as complements? Specifier, and adjuncts within any particular phrase type; moreover, it will account for the structural patterns that Daju phrases offer. The study will also focus on the inflectional categories that are significant to syntactic projections, with the view of examining the role of

morphology in syntactic structures. Hence, inflectional categories correspond to nouns such as, marking, and those corresponding to verbs such as agreements.

1.3 Objectives of the Study

The general goal of the study is to account for the structure of Daju simple clauses by using a small number of general principles and parameters of universal grammar, namely: headedness principle, government principle, projection principle, and empty category principle. The discussion will be centered on:

(1) The types and order of elements of the phrase in Daju.

(2) The realization and distribution of inflectional morphemes corresponding to lexical grammatical categories.

(3) The role of Daju inflectional morphology in its syntax.

More specifically, the study aims at: giving a detailed description of the structure of Daju noun phrases, verb phrases, and simple clauses, exploring the inflectional component involved in the structure of phrases and sentences, analyzing the Daju language.

1.4 Questions of the Study

The study does not form any hypotheses in the formal sense. However, on the basis of the preliminary reading, it seems that the Daju phrase structure complies with universal grammar principles and parameters in some respects and poses challenging issues in others. In particular, while head setting parameter allows for two options of the position of the head with respect to its complement in all the phrase types of a language, Daju seems to offer varying positions of heads of different phrase types; i.e. in Daju noun phrases, the head occurs on the left of its complement and so do in verb phrases, the head occurs on the left of its complement. Then the study will go directly into the linguistic analysis of Daju, guided by the following questions:

(1)What are the possible arrangements of the elements in basic word order that Daju language exhibits?

(2)What is syntactic structure of Daju language rephrasing it, what are the basic sentence structures in Daju language?

(3) What are the main principles and tools that enable the linguists to analyze the grammatical system of Daju language?

1.5 Significance of the Study

The study adopts generative grammar, as the model of analysis of the Daju grammar, which is one of the most updated formalisms employed in the study of the structure of languages. As it assumes a universal status to account for the grammars of all possible human languages, generative grammar, unlike traditional approaches, provides tools and algorithms for linguistic analysis that are not language-particular but universal. The study gains special importance as it is the only one that attempts to describe the grammar of Daju from a generative grammar perspective; it starts the systematic study of the generative grammar of Daju. By so doing, it is hoped to highlight those aspects of Daju grammar that pose challenges to the theory of generative grammar and those aspects which have not been accounted for systematically by the previous studies adopting other models. After all, the study will contribute, along with others, to the establishment of a comprehensive grammar of Daju, which will, then, serve as back-up for the Daju language teaching and learning.

1.6 The limitation of the Study

The study is limited to the areas of syntax and the typological components involved in Daju phrase structures. It focuses on the structure of Daju phrases with respect to their component elements, the patterns they manifest and those inflectional features which have syntactic influence. Namely, it covers the structure

of noun phrases and verb phrases along with their syntactically relevant inflectional features, Daju sentence structure, and word order of Daju sentences.

1.7 The Methodology of the Study

The methodology of data analysis used by the study is a descriptive one. It employed the terms and schema of the X-bar syntax, in which the structure of constituents is described by using phrase structure rules and corresponding tree diagrams. A number of Daju noun phrases, prepositional phrases, verb phrases, and different sentence types were examined and described in X-bar syntactic terms, such as specifier, heads, complements, adjuncts, and embedded clauses. Using phrase structure rules and tree diagrams, this method helped reveal the specifier and complement options for different head word categories and formulate the rules for the order of elements within the phrase. While the phrase structure rules were devised to illustrate the linear order and relations of the elements of the phrase, tree diagrams were used to represent the hierarchical order, which illustrates the relations of dominance among the elements of the structure.

After all, using the generative grammar approach was, on the one hand, hoped to reveal some aspects about the grammar of Daju that have not been covered by the previous studies, which adopted taxonomic grammar approach. Daju further adequate description and explanation, aspects such as arrangement of elements within the phrase, the argument structure of Daju sentences, need to be studied in generative grammar terms. Moreover, as the study aimed to test the applicability of some universal grammar principles and parameters to African languages, such as Daju, the use of generative grammar methods of linguistic analysis.

All the data were presented in English script. Except for those sounds that English does not have alphabetical symbols, the study resorted to IPA symbols; tone will also be represented in situations where it underlies grammatical distinctions. Following the Leipzig glossing rules, an elaborate layout is yielded in

which the first line is from the object language, the second line, i.e. the glossing, represents the root words and any overt/null affixes attached to them. The third line is the translation in English. Segmentable morphemes are separated by hyphens, both in the example and in the gloss. There must be exactly the same number of hyphens in the example and in the gloss. For example: (1) Lezgian (Haspelmath 1993:207)

(1) a. *Gila abur-u-n ferma hamišaluğ güğüna amuq'-da-č.*
Now they-OBL-GEN farm forever behind stay-FUT-NEG

'Now their farm will not stay behind forever.'

b. *John   sij-a   eeiɛ   ani tɔmɔh-ɛ*   **"Daju"**
S-3sg-NOM   V-a-M   DO-Acc   IDO-Dat-NUM

'John eats meat with honey'

The glossing contains lexical and grammatical information that are part of the syntactic description. It must be noted that the glossing is not an exhaustive morphological analysis of the object language; it rather elaborates the morphological structure as to illustrate the subject matter in point.

1.7.1 Data Collection and Informants

The field work was conducted during March 2012 until June 2014.The present study is limited to study syntax of Daju language, which is spoken by Daju tribe that lives in South Kordofan State, specifically Daju Lagawa. Daju language is an Eastern Sudanic branch of Nilo-Saharan. The language and dialects of the Daju groups are spoken in Kordofan (Western, Southern and Northern), Southern Darfur, on the Sopo river Bahr Al-Ghazal Basin and Wadai, in Chad. Language lives in the area of Lagawa which far about 135 kilometers west of kadugli. The language is spoken by about 2100 people. Lagawa is the host environment for migrants and refugees from the original homelands of the other tribes such as Massiria, Nubian and so on. The primary data were collected from twenty five

native informants; they provided the study with the data relevant to word classes and their corresponding morphological features, phrase structure, and sentence structure. They are students, teachers in different levels as: Dr. Alzein Jumaa, Dr. Mohammed Yagoob, and Dr. Mohammed Abbakar all of them are able to understand the linguistic terms that the researcher used to elicit the intended instances. Their technical linguistic knowledge and the state of being multilingual, as they speak Daju, Arabic, and English, have been a valuable asset as to provide the relevant response and reveal those sharp distinctions that Daju grammar exhibits. The other informants are from the Wareena area: Mohammed Ajbar, Adam Alnoor, are students and Suleiman Yagoob is security in PETRONAS Company. They were basic level school teachers, who were all above the age of forty, and permanently living in rural areas where the Daju language predominates. However, during the time of the field work, those teachers are working at the Kordofan University faculty of education; they helped the researcher in different part of the research, in addition to; the sources that deal with Daju language. Sentences and word order are elicited from real utterances via different tools. Validity and reliability data were verified, classified and analyzed, the sentences and the word order of the Daju language were organized in suitable sentences, compared and contrasted thoroughly with those of the English sentences and other languages. Sentences of Daju language are analyzed to show the prominent sequence of word order such as: s-v-o, prepositions, adjectives, nouns and, verb; also the keyman program is used in the data analysis to enable us in writing and pronunciation of sounds (e.g. /ɲ/ ɲrr'tətɛ means 'tooth').

1.7.2 Subjects

The target groups from whom utterances are recorded are the native speakers of Daju. Respondents have been selected systematically from the area of Lagawa town which constitute the main residence of Daju people in South Kordofan State.

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Twenty five people were selected to respond to the recordings. These include different ages and sex. Same recordings of utterances of five old men they are teachers and educated , five old women five young men, five young women, five children; three boys and two girls is conducted to collected different utterances to help in verifying the utterances. These recordings were subjected auditory analysis by a specialized computer program for the analysis of speech sounds.

The table,(1.1) below shows the classification of the total number of respondents, according to their age and sex.

Group	Number	Age rage
Old men	05	40 - 70
Old women	05	40 - 50
Young men	05	18 – 39
Young women	05	18 – 39
Children (boys and girls)	05	07 – 17
Total number	25	

Table (1.1): gender and age

Table (1.1) classifies respondents to sex and age. These five groups have been involved in responding to the recordings. They are all equal in numbers according to the age range; so that to include different generations and govern the utterance qualities objectively whether at the level of the sound or at the level of the utterance. The children of both sexes are five in number because their voices are similar and they do not cause difference. The old men and old women respondents' age range starts from forty and it is open ended. Respondents of young men and young women range from eighteen to thirty nine. The random selection of each group of respondents plays a great role in verifying the analysis of the utterance horizontally and vertical objectively.

For all the informants, Arabic language was used to collect the data as they have a good mastery of it as a second language. In one phase, the researcher

collected data through structured interviews, in which informants were requested to provide the Daju equivalents to words, phrases and sentences made available in Arabic. The list of words focused on part of speech and was intended to reveal the base forms and the inherent inflectional categories pertaining to the Daju noun and verb classes. Phrases were used to help identify other nominal and verbal inflectional categories, such as word order, case, person, and agreement. Phrases were also used to check the order of elements within the phrase; how specifier, heads, complements, and adjuncts are arranged. For identifying verbal inflections for person and agreement, the paradigmatic approach was used, i.e. substituting different subjects and objects of the same verb whereby form changes would be noticed. Verbs of different subcategories, such as transitive, intransitive, verbs of motion, sensation, and location, were all examined in terms of their inflection and syntagmatic relations. The constituent of sentences, however, were designed as to test the subject, predicate and alternative word orders, the structure of simple and complex sentences, question formation, and the syntactic operations, such as movement and pro-dropping, that Daju permits. The other phase of data collection was based on open-ended texts. The informants were requested to speak about the Daju people's traditions of wedding and collective work of house building. They were also requested to recount stories from oral literature of Daju. For convenient reference, the informants were recorded on a digital recorder, which made it possible to transcribe their narrative. After each recording, the same informant was involved in the task of the transcription of their response along with an inquiry on the important grammatical features or distinctions that their response might have revealed. In addition to those primary source data, the study also made use of the secondary data about the grammar of difference languages available as Robert D. (2004), William C. (1991), Beaton (1968) and Jakobi (1993). For the theoretical

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framework and literature review, the study relied on books and papers as secondary sources.

1.8 Summary of chapter one

This section gave a complete hint on this dissertation. Daju language and its classification, the origin of the Daju and the area of their presence, also dealt with the problem of research and adopted the descriptive theory; for its modern and suit for this study. It also explained the purpose of the simple sentence study in the language of the Daju and its classification through the theory of TG and general grammatical theories. It also talked about the methods of collecting information from the Daju society, both male and female, using analysis tools, following the method of Lezgian (Haspelmath 1993).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The notion of syntax has been central in the grammatical descriptions and linguistic theories over centuries. Greek and Latin grammarians provided elaborate account and classifications of Greek and Latin grammar, which were then applied to many other European languages. Grammarians of classical Arabic were also concerned with the study of grammar and developed detailed account on Arabic system. Syntax, therefore, is not a newly-introduced concept in linguistic theory. It has been defined from different perspectives.

2.1 The Classical Traditional Grammar

The classical tradition refers to the stream of reflections of modern grammars on syntax that have been developed in 1950s by Noam Chomsky. Nevertheless, the discussion will invoke some historical accounts from traditional grammar when necessary. In classical tradition, syntax was considered as a typological grammatical category. Specifically, it is conceived of as a morphological category which is manifested by the different forms that the nouns and related categories take; nouns inflect to indicate the relationship they bear to their heads in the structure.

There are two main approaches to the study of language universals, one influenced by the work of Joseph Greenberg, the second by the work of Noam Chomsky; the two approaches differ quite radically in terms of their attitude to evidence for and explanation of universals and since the Chomskyan approach is the simplest in both respects:

2.1.1 The Chomskyan Approach to Universal

Linguists influenced by the work of Noam Chomsky (1957) distinguish two kinds of universal, formal and substantive universals. Some of these are features of all languages, while others represent a set of features from which each language selects a subset. For example, Jakobson's distinctive-feature theory provides a list of 15–20 features, for which it is claimed that (Comrie, 1989:15):

The phonological system of any arbitrary language will make use of no distinctive feature not contained in the list, although it is not necessary that any individual language should make use of the whole set (thus English does not make use of the feature Checked).

a. A formal universal: is one which determines the form of the grammar, rule types, and the principles of rule interaction.

b. A substantive universal: refers to the content of the rules such as the categories and bar levels of X-bar theory.

Chomsky (1986a:23) defines UG as the "theory of human I-languages.....that identifies the I-languages that are humanly accessible under normal conditions", therefor, Hawkins (1988b:6) clams that one of the first universals to be established within this tradition, namely the universal 'all languages are structure dependent'. Radford (2009) points that Chomsky's overall goal is to develop a theory of universal grammar that may account for the grammars of all possible natural I-languages. In order for that theory to have a universal adequacy, it should develop generalizations from the grammars of particular I-languages towards the grammar of all possible natural I-languages.

Cook (1988:2) bases on 'the principle of structure-dependency, which asserts that knowledge of language relies on the structural relationships in the sentence rather than on the sequence of items'. It is obvious that English speakers' ability to form *yes/no* questions, for instance, does not depend merely on knowledge that a

word appearing at a certain place in a declarative clause must be moved to the front to form the interrogative. To form the question, *Will the letter arrive tomorrow?,* for example, one needs to move the third word of the declarative, *The letter **will** arrive tomorrow,* while to form the question, *Is this a dagger I see before me?,* one needs to move the second word of the declarative, *This **is** a dagger I see before me.* What is crucial in question formation is knowledge of syntactic categories: to be able to form English questions, it is necessary to recognize the class of auxiliary verbs, and to know that items of this class are put first in questions. But even this knowledge is not sufficient to explain English speakers' ability to form questions involving relative clauses. In The man who is tall *is John,* the related question is formed by moving the second auxiliary, while in *John is* the man who is tall*,* the related question is formed by moving the first auxiliary. Knowing how to form questions in sentences with relative clauses involves knowing that it is the auxiliary in the main clause that has to be moved, and this involves knowledge of structure. Similarly, in forming passives, one need to move a phrase, not just a word in a particular place in the sequence, and this again implies knowledge of structure, since without such knowledge the identification of phrases would be impossible.

Niclas, E. (2006:55) point out that UG is a set of innate universal principles that equips all humans to acquire their native language and is also held to account for patterns of cross-linguistic similarity. UG is thus a theory set out to uncover the nature of possible grammars of human languages; it attempts to identify the defining properties of the grammars of human I-languages. Having been assigned for such enterprise, UG theory should satisfy a number of criteria of adequacy.

Chomsky's (1981, 1982) Universals established as TGG evolved parameters for instance, the head parameter**,** which specifies the order of elements in a

language. Any phrase will contain one element which is 'essential'. This element is called the head of the phrase. Cook; (1988:7). For instance, in the verb phrase:

(1) *liked* him very much.

Liked is the head. The head in English appears on the left of the rest of the phrase, while in Japanese, for instance, it appears on the right. The innate, universal head parameter specifies that there are just these two possibilities, and that a language chooses one consistently, that is, 'a language has the heads on the same side in all its phrases' (ibid: 9). Parameters reduce the variation between languages to just a few possibilities.

The Chomskyan tradition establishes its universals on the basis of careful, detailed analysis of one or a small number of languages. The surface structure of any language is explained with reference to certain highly abstract features which are shared by all languages because they are innate in humans.

Cook, (1988:1-2) argues that 'a set of principles that apply to all languages and parameters that vary within clearly defined limits from one language to another'. Exactly what these innate universal features are is determined by grammatical analysis, but innateness serves within this tradition as the explanation for all the universals it establishes.

Innateness is chosen as an explanation because Chomskyan see the study of language as a means of exploring the human mind. They explore language as a phenomenon internal to speakers, rather than as a social phenomenon. Innateness is justified as an explanation for universals on the grounds that the evidence children have available through the language they hear around them is insufficient for them to develop the complex, abstract grammar which underlies any language.

Hawkins (1988b) argues that the negative evidence problem here is so similar to that for which UG has been offered as a solution (e.g., for subjacency violations in Hoekstra and Kooij, (1988), claim that syntactic analysis is required to establish

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what the universals are, so that the nature or existence of any one particular universal may be questioned if the accuracy of the syntactic analysis from which it is derived is questioned.

Fisiak, (1975:62), claims that every language will be analyze and describe in its own categories in so far as every language employs different and unique grammatical means.

Frederic (2005) points out that the head setting parameter was then supported in the late 1980s by the proposals that nominal phrases are headed by determiners, sentences by tense and full clauses by complementizer. Such newly devised categories as determiner phrases (DPs), tense phrases (TPs), and complementizer phrases (CPs), have structural parallels with the well-established categories such VPs and PPs and therefore are said to strengthen the case for head setting parameter. That is, by way of illustration, English DPs, TPs, CPs, as well as VPs and PPs, are compatible with the assumption that English is a head-left language. Determiners occur in the left, most of their NP complement, auxiliaries occur to the left of their VP complement, and complementizer such as *that* stands at the beginning of the clause they introduce. It has been a controversy as into which system of principles the head parameter falls.

Frederic (2005) maintains that it was the concern of X-bar theory to capture the generalization that heads either precede or follow their complement. It has been proposed that a parameter of phrase structure with two values would read: *heads-before-complements* or *heads-after-complements*. The structural correlations that follow as consequences of this parameter are that, while VO languages tend to be prepositional, OV languages tend to be postpositional.

Universals may be discarded, and new universals proposed as syntactic analysis develops. The firmest evidence for a universal which this tradition is interested in establishing is that syntactic analysis has revealed that a principle underlies an

aspect of grammar, and that this principle is not one which a child could discover from any data available to it. Such a principle must be innate: it must be part of the Universal Grammar.

Cook (1996:133) states that 'X-bar syntax insists that phrases must be endocentric: a phrase always contains at least a head as well as other possible constituents'. Hence, a noun phrase (NP) such as *a book of poems* contains a head *book;* a verb phrase (VP) *eat hotdog* contains a head *eat.* X-bar syntax stipulates that the head of the phrase must belong to the particular category which labels the overall phrase. This requirement can be formulated as follows:

$$NP \longrightarrow N$$
$$VP \longrightarrow V$$

The formulas above tell us that a V (verb) cannot act as head of NP (noun phrase) nor an N (noun) can act as head of VP. Hence, we judge structures such as *'the milk cows the shepherd'* as ungrammatical due to wrong selection of head. Cook argues that the head relatedness to its phrase type is not a matter of chance.

Smith (2004) goes in the same direction as Cook by claiming that phrase structure is characterized by the generalization that; X phrases contain Xs as their heads. Such generalization can be formalized as follows:

$$XP \longrightarrow X$$

The X on both sides of the formula refers to the same category; any phrase labeled XP, where X stands for any of the categories nouns, verbs, adjectives, or prepositions, must be headed by X of the same type. This principle of phrases must have heads of the same category as the phrase itself is central in X-bar theory.

2.1.2 Recent Developments

The stream of thought of TG has gone into government and binding theory (GB) whereby a new perspective of case was developed. Within the framework of government and binding, case is perceived of as an abstract syntactic notion that is

realized by morphological inflections shown up on the surface of nominal elements in some languages. It is argued that these overt morphological inflections are language-specific properties used to index a deeper universal syntactic notion. Syntactic case is given primary importance as it enables each determiner phrase (DP) to be related syntactically to the other elements of the clause. This is strongly manifested in GB principle of case filter given by Haegeman (1991): "Every overt NP must be assigned abstract case". This principle filters out NPs that are not assigned case and underlies NP-movement, a noun phrase may move from one position to another position to get case-assigned. It is assumed that transitive verbs assign structural accusative case to their objects, while Infl or T (functional category) assigns structural nominative case to its subjects and that morphological case, as a language-specific property, is a manifestation of structural case.

In more recent works of syntax, Minimalism Program has taken the lead, where the basic role of abstract syntactic case has remained essentially the same, but its formal implementation has been revisited. Within GB, case is assigned to the core DP by a head whereas within the framework of minimalism program case is considered part of the package of grammatical features (morphological, syntactic, and semantically relevant features) that constitute up the DP. The nominals typically bear the features person (Pers), number (Num), gender, and case (Case); likewise the functional head T bears the features tense (Tns), person, and number. It is assumed that these features must be checked in a particular configuration with an appropriate head, rather than being assigned by such a head.

Radford (2009) points out that agreement plays an integral role in case assignment, in that the person/number features of the functional head T are checked against the person/number features of the nominal, which, in turn, gets assigned nominative case as to correspond with the finite T.

The minimalist syntax of case suggests that morphological case, in languages which exhibit it, is directly related to syntactic case. Case values can be assigned contextually either through government (typically by a verb or preposition) or through agreement with case-assigning functional head such as finite T.

2.2 Greenberg's Approach to Universal

The universals isolated in the Greenberg tradition tend to be less abstract than those of Universal Grammar and they are established on the basis of data from 'a large and representative sample of world languages.

Greenberg, J. (1966:xvi) considers that the ideal base for the study of language universals is all potential human languages. However, many extinct languages were not recorded, or not recorded in sufficient detail to provide usable data, and there is obviously no evidence available from any languages which might evolve in the future. Research must therefore be limited to the study of languages which are available to present observation, even though it is logically possible that these may turn out, at some distant point in the future when quite different languages may have evolved, not to be at all representative of all of the possible kinds of language.

Greenberg (1966b) works with a sample of thirty languages: Basque, Serbian, Welsh, Norwegian, Modern Greek, Italian, Finnish (European), Yoruba, Nubian, Swahili, Fulani, Masai, Songhai, Berber (African), Turkish, Hebrew, Burushaski, Hindi, Kannada, Japanese, Thai, Burmese, Malay (Asian), Maori, Loritja (Oceanic), Maya, Zapotec, Quechua, Chibcha, and Guarani (American Indian). He proposes forty-five universals of the following three kinds.

Although some universals, such as 'all languages have oral vowels' are nonimplicational specify that a certain property is found in all languages without making reference to any other properties of language is evident from Greenberg's list that many other universals are implicational relate the presence of one property to the presence of some other property in such a way that *if* one property is present,

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then the other must also be present. Since for any two properties, p and q, it is logically possible that both may be present, that p may be present while q is not, that neither may be present, and that q may be present while p is not, we can see that an implicational universal delimits the logically possible combinations of linguistic properties: they specify that it is not the case that p can be present while q is not. It is only when all the other three possibilities are in fact manifest in some language(s), that there is any point in making an implicational universal claim. For instance, where p is 'nasalized vowels' and q is 'oral vowels', the claim 'if p then q' is empty, because, since all languages have oral vowels, the case where neither p nor q are manifest does not obtain. Therefore, the nonimplicational universal 'all languages have oral vowels' together with the statement nasalized vowels are possible' render the implicational universal superfluous.

Comrie,(1989:17-18), points out that Greenberg's list reproduced above also illustrates another parameter, in addition to the implicational/non-implicational parameter, along which universals may be classified, namely the distinction between absolute universals, which are exception-less, and universal tendencies, to which there are exceptions

Comrie, (1989:19) explains that, this distinction is independent of that between implicational and nonimplicational universals, giving over all a fourfold classification. There are absolute non-implicational universals, such as: all languages have vowels. There are absolute implicational universals, such as: if a language has first and second person reflexives; then it have third person reflexives.There are non-implicational tendencies, such as: nearly all languages have nasal consonants (although some Salishan languages have no nasal consonants). Finally, there are implicational tendencies, such as: if a language has SOV basic word order, it will probably have post-positions (but Persian, for instance, is SOV with prepositions).

Hawkins (1988b:5) defines a distributional or frequency universal as one which states that languages of one type are more frequent than languages of another type Distributional universals include 'the more similar the position of syntactic heads across phrasal categories, the more languages there are' and 'languages without self-embedded relative clauses are more frequent than those with'

Comrie (1989: 28) proposes a similar explanation of the fact that the existence of first-or second-person reflexive forms in a language implies the existence of third-person reflexive forms: these argue says that ; for each of the first and second persons, there is hardly ever ambiguity in a given context whether different instances of the corresponding pronoun are coreferential or not: in a given sentence, all instances of *I are coreferential*, as are usually all instances of *we* and all instances of *you*. In the third person, however, there is potentially a vast number of referents. Some languages say *I hit myself* and some say *I hit me*, but it is not possible to have both interpreted literally with a semantic difference of coreference. But if a language has both *he hit himself* and *he hit him* as possible sentences, then a semantically important distinction of coreference versus non-coreference can be made.in this case Daju has both forms (e.g.*ap kow ab* and *ap kow wanɛnə*); thus reflexivity is simply more important in the third person than in the first or second persons, and this is reflected in the implicational universal.

Other universals may be explained as resulting from constraints which one part of grammar imposes on other parts, or from constraints imposed by the level of meaning on the level of form.

Keenan (1987) argues that for a Meaning-Form Dependency Principle, which explains why, if in a language there is morphological agreement between, for example *nouns* and *adjectives*, in for instance, *number* and *gender*, it is always the adjective that agrees with the noun. He argues that this agreement restriction in the morphology arises from a semantic restriction which tends to cause any function

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category, such as adjective, to change its interpretation to accord with that of its argument, for instance a noun, while the interpretation of the noun is typically invariant with different modifying adjectives.

For instance, the word *flat* has a different interpretation in *flat* type; flat beer; and flat road, whereas road has the same interpretation in flat road; dusty road and windy road.

Hawkins, (1988b:9) argues that Meaning-Form Dependency thus explains a strong form of internal consistency within the grammar:

'a dependency in form…mirrors a dependency in meaning. That is, a universal morphological dependency follows from a semantic dependency'.

Some language universals may be explained by reference to the processing demands placed on language users by, for instance, memory constraints and by the relative ease or difficulty involved in processing certain structures in comprehension and production. For example, it is known that it is more difficult to process centre-embedded relative clauses (that is, relative clauses which come in the middle of the sentence) than it is to process left-peripheral relative clauses (relative clauses which come at the beginning of the sentence) or right-peripheral relative clauses (relative clauses which come at the end of the sentence). This may be because centre embedding requires the processor to interrupt the processing of the main clause in order to process the embedded clause. Thus in *The man [that the boy kicked] ran away,* one has to interrupt the processing of *The man ran away* to process *that the boy kicked*. This becomes increasingly difficult if more than one clause is embedded. Consider: *The man [that the boy [that the dog [that the cat [that the mouse hated] scratched] bit] kicked] ran away*.

Languages tend to avoid centre embedding, even though it is, as we have seen, a possible construction in English. But the general tendency to avoid it, and the difficulty in processing it when it does occur might motivate the grammatical

phenomenon of word correlation between verb position and relative-clause position.

Comrie, (1989:27) believes that If a SOV language had postnominal relative clauses, then every single relative clause would be centre embedded, occurring between its head noun and the verb…. Likewise, if a VSO language had prenominal relative clauses, then every single relative clause would be centre-embedded. The attested correlation means that at least some noun phrases are left peripheral (in SOV languages) or right peripheral (in VSO languages).
Certain properties of the human perceptual and cognitive apparatus are also relevant to the discussion of universals.

Berlin and Kay (1969) have shown that if a language has a colour system at all, it will distinguish at least black and white. If it has three colours, the third will be red; if it has four, then the fourth will be either green or yellow; the fifth will be the other of green or yellow, the sixth will be blue, and the seventh brown, but Kay and McDaniel (1978) point out that this universal feature can be explained by reference to the neural anatomy of the colour vision of humans.

Greenberg, (1974:54-5), claims that language typology is based on the assumption that the ways in which languages differ from each other are not entirely random, but show various types of dependencies among those properties of languages which are not invariant differences statable in terms of the 'type'. The construct of the 'type' is, as it were, interposed between the individual language in all its uniqueness and the unconditional or invariant features to be found in all languages.

Mallinson and Blake, (1981:6), argues that each language is not necessarily assigned to one class only. For example, in Sapir's (1921) morphological typology, languages are arranged on a comparative scale in regard to some properties, and in

Greenberg (1954) such scales are made explicit by the provision of a metric with ten indices.

Greenberg (1974:13) dates the first use of the word 'typology' in linguistic literature to the theses presented by the Prague linguists to the First Congress of Slavonic Philologists held in 1928. Until then, classification of languages was largely genetic, that is, it was based on the development of languages from older source languages and the only extensively used typology was morphological classification of languages as approximating towards ideal types:
 isolating,   agglutinating/agglutinative,   inflecting/flectional/ fusional   and polysynthetic/incorporating.

Comrie (1989::43) believes that an ideal isolating language is one in which there is a one-to-one correspondence between words and morphemes. provides these examples from Vietnamese (2):

(2) Khi | tôi | đến | nhà | bạn | tôi,
     when | *I* | *come* | *house* | *friend* | *I*

     chúng   tôi | bắt | đầu | làm | bài
     PLURAL   *I* | *seize* | *head* | *do* | *lesson*

'When I came to my friend's house, we began to do lessons.'
In addition to Vietnamese, Chinese and several other South-East Asian languages are usually classified as close to isolating.

An agglutinative language is one which attaches separable affixes to roots so that there may be several morphemes in a word, but the boundaries between them are always clear. Each morpheme has a reasonably invariant shape, as the following example from Comrie (1989:44) demonstrates that the example shows the declension of the Turkish noun *adam* 'man' (3):

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(3)	**Singular**	**Plural**
Nominative	adam	adam-lar
Accusative	adam-I	adam-lar-i
Genitive	adam-in	adam-lar-in
Dative	adam-a	adam-lar-a
Locative	adam-da	adam-lar-da
Ablative	adam-dan	adam-lar-dan

Typically, Daju is an agglutinative language (e.g. ***K**-onok* ***ne-k**-or-**k** ap* 'we saw him'), because there are many affixation that attached to Daju's word such as bold affixations *'k-,ne-k-,-k'* and so did in other languages such as: Hungarian and Japanese are also usually classified as close to agglutinating.

An inflecting, or fusional language is one in which morphemes are represented by affixes, but in which it is difficult to assign morphemes precisely to the different parts of the affixes. For instance, in the Latin (4):

(4) Puell-am bell-am am-o

'I love the beautiful girl'

The *-am* ending on the noun and on the adjective marks the noun as feminine, singular, and accusative, and the *-o* ending on the verb represents first-person singular subject and present active indicative; in addition to Russian, Ancient Greek, and Sanskrit are also inflecting.

Also there are other Eskimo languages and some American Indian languages are also polysynthetic. Few languages fall clearly into one of these categories, and linguists working in this tradition have provided increasingly complex classification systems. For instance, Sapir (1921) provides three parameters, grammatical, processes, and firmness of affixation. Horne (1966), argues that these difficulties give rise to 2,870 language types, that is, about half as many types as there are languages, and if typology aims to order linguistic variety, then the value

of such a system may be questioned. In addition, it is often difficult to establish word and morpheme boundaries, and even to arrive at a satisfactory definition of both phenomenon and these difficulties cause severe practical difficulties for morphological typology.

The Prague School linguists were primarily interested in typologizing languages on the basis of their phonology. Phonological typology is based on the different ways in which languages organize sounds into phonological systems and syllable structures

Robins, (1989:370) point out that the best-known distinction here is that between tone languages and non-tonal languages. This distinction is drawn according to the function in the different languages of voice pitch: briefly, in tone languages pitch helps distinguish one word from another, while in non-tonal languages pitch does not have this function. Within tone languages, distinctions may be made between those whose tones are of contrasting levels and those in which rising and falling pitch is part of the tone system itself. Tone languages can also be typologized on the basis of the number of tones they contain and on the basis of the uses to which the tones are put.

Languages also differ phonologically in terms of the kinds of syllable structure they permit. Every known language contains CV syllables (syllables composed of a consonant, C, followed by a vowel, V), but languages like Daju, English and German permit a high degree of consonant clustering at the beginning and end of syllables, whereas Fijian and Hawaiian do not. A consonant cluster consists of several consonants in succession, e.g. German *Angst,* English *scream;* the Danish versions of these two clusters come together in the compound, *angstskrig,* 'scream of fear', with six consonants in pronunciation, which is /aŋstskRI/.Daju *pr* 'fire' two clusters come together with zero vowel /mədk/.

2.3 The basic Word Order

The notion of a basic word order in terms of S, V, and O is common to a large number of studies in grammatical language typology: languages are typologized on the basis of the order in which S, V, and O typically occur in the simple sentences of the language. The most common basic word orders are SVO, as in Daju, English and French, and SOV, as in Japanese and Turkish. German has SVO in main clauses and SOV in subordinate clauses, and Robins (1989) classes it as an SVO language. VSO, as in Welsh, is the next most common, but all of the six logically possible configurations, SOV, SVO, VSO, VOS, OVS, OSV, are, in fact, found: Malagasy (West Indonesian language of Malagasy, previously Madagascar) has VOS, and Hixkaryana (Carib language of Northern Brazil) has OVS. There are also languages, such as Dyirbal (Australian language of northeastern Queensland), that do not appear to have any basic word order.

This, however, merely means that typology in terms of word order is limited to those languages that have a basic word order; just as tone-language typology is limited to tone languages.

Tomlin, (1986:3) establishes this relative frequency SOV = SVO> VSO > VOS = OVS > OSV on the basis of data from 1,063 languages, and explains it on the basis of interaction among three principles (6):

a. the Theme First Principle, (TFP) says that thematic information which is particularly salient to the development of the discourse likely to come first in simple main clauses

b. the Verb-Object Bonding principle, (VOB) principle says that in general the O of a transitive clause is more tightly bound to the V than to S.

c. the Animated First Principle, (AFP) states that in basic transitive clauses, the NP which is most animated will precede others.

The principles are explained as arising from the processes and limitations of human information processing ability.

2.4 **Constituent order**

Constituent order (word order) refers to the arrangement of elements within the sentence. As a parametric property, languages have different patterns of word order with varying degree of rigidity of ordering and extent to which it is critical to distinguish syntactic functions. Dixon (1994) states that languages fall into two groups in this respect: (a) those which use word order as a determinant factor in distinguishing the syntactic functions; (b) those that have other alternative mechanisms to mark syntactic functions.

Many languages of group (b) may have flexibility of word order that can be used to mark a topic, draw a distinction between 'given' and 'new' information, or satisfy other non-grammatical functions. Arabic, for instance, has the canonical constituent order VSO; however, either of S or O can occur in the sentence initial position so that it can receive more emphasis as the topic of the sentence or fulfil any other function intended by the user.

Dixon (1994) suggests that, for languages of type (a), a language word order corresponds with whether it is accusative or ergative. That is, a language with an accusative case system would likely have the combination SV/AVO or VS/OVA and that a language with an ergative case system would probably have the combination SV/OVA, VS/AVO. The combinations of the accusative language indicate that S and A are treated in the same way as they either occur immediately before or after the verb with O has different position. Likewise, ergative language combinations indicate that S and O are treated equally as they either occur immediately before or after the verb with A of different position. However, Dixon points out that such categorisation is difficult to apply to verb-initial or verb-final languages. He argues that with orders SV and AOV either that S and O are treated

equally, as they both immediately occur before the verb; or that S and A are equivalent since they both occur initially; similarly the case with SV/OVA, VS/VAO and VS/VOA.

   Taking Dixon (1994) suggestion into account, some languages of type (b), where syntactic functions are signalled by case inflection or cross-referencing and therefore may have flexible word order, would pose greater challenge to the proposed combinations. Daju is a typical example of language whose preferred word order is SV/AVO on accusative pattern; both transitive and intransitive subjects are cross-referenced in the same way and occur initially. Consider the following examples from the Daju:

   1. (7) a. Peter   k-ɑw   ɑg
           3sg-NOM   M-hit   me-ACC.

               'Peter(A) hit me (O)'   *Marker constituent order AVO*

           b. əʃko   k-ɗo
               1PL-NOM   M-go PAST

               We (S)   went.   *Marker constituent order SV*

   Typically, Daju has the marker constituent order SV/AVO on accusative pattern. However, agreement markers and case inflection allow for the occurrence of such combinations as, SV/AVO, SV/OVA, or VS/VOA. The first combination relates to Daju and accusative pattern while the other combinations are compatible with ergative pattern. Hence, Dixon (1994) concludes that, with languages of such relatively free constituent order, it is not easy to characterise a language as accusative or ergative on the basis of its word order alone.

   Comrie, (1989:90) considers that word order within the noun phrase concerns the relative order of adjective (A), noun (N), genitive (G), and relative clause (Rel). For A and N there are, obviously, two possible configurations, AN (English; Turkish) and NA (French; Welsh). Languages with basic order NA are more

tolerant of exceptions (French: *le petit prince* 'the little prince' as opposed to *le tapis vert* 'the carpet green') than AN languages: in English, for instance, *the carpet green* is distinctly odd, and such constructions are only found in set expressions like *princess royal* and *court martial* and in some poetry.

Comrie (1989:145) gives the following example from Bambara (a member of the Mande branch of the Niger-Congo languages, spoken in Senegal, Mali, and Burkina Faso (Upper Volta))(9):

(9) a. ɪyɛ   be   [n ye so min ye]   dyɔ
man the   PRESENT   *I* PAST *house see   build*
'The man is building the house that I saw.'

In this part the square brackets [ ] stand for the relative clause in this construction, but it is a construction which can stand alone, in which case it would mean 'I saw the house'. So in relative clauses in Bambara, N is expressed in the relative clause in the usual form for a noun of that grammatical relation within a clause, and there is no expression of it in the main clause. Bambara has SOV basic order, and the relative clause functions as Object in the main clause: 'The man is the house that I saw building.' It should be noted that there are languages which may not have any construction which could be called a relative clause at all.

For G and N there are again two possible orders, GN and NG. English uses both: *the man's son/the son of the man*. French uses NG and Turkish GN.while Daju forms N initial then G: *iis-ana, murrtæn-aŋ*, *their dog, my horse*.typically as French NG.

Comrie, (1989:91) agrees that adpositional word-order typology is concerned with whether a language uses mainly prepositions (Pr) or postpositions (Po). English uses Pr: *for the man;* whereas Turkish uses Po: *adam için* 'the man for'. Pr and Po are adpositions (Ap), Pr being a pre-N adposition and Po a post-N adposition, hence we can typologize languages as ApN (English) or NAp

(Turkish). Estonian uses both orders and most Australian languages have neither Pr nor Po.likewise Daju uses ApN means that preposition +noun.

Comrie (1989:204-5) suggests that each language has possesses all or some of the following features:

(1) syncretism of genitive and dative case, that is, the same form is used to indicate both the possessor and indirect object in noun phrases;

(2) postposed articles, that is, the definite article follows the noun; and

(3) the loss of the infinitive, that is, each language translates

Give me something to drink with the structure 'give (to-)me that I-drink', in which the place of the infinitive is taken by a finite subordinate clause introduced by a conjunction(10):

(10) Rumanian   *Bulgarian*

 dă-mi să beau   daj mi da pija

 Albanian   *Modern Greek*

 a-më të pi   dós mu na pjó (Comrie, 1989, p. 206)

Word typology may also be applied to analyses of grammatical or other properties of languages, for example to Bloomfield's (1933:194-6) division of syntactic constructions into endocentric and exocentric types; (Greenberg, 1974:14) point out that an endocentric construction is one which is of the same form class as one of its constituents; for instance, *poor John* is of the same class, noun phrase, as *John*. An exocentric construction is one which is not of the same form class as any of its constituents; for instance, *John ran* is neither an NP nor a verb phrase, but a sentence.

Hawkins (1988: 4) and Comrie (1989:23) both point out, there is no reason why one should not embrace both the Chomskyan and the Greenbergian approach and work toward a greater degree of precision in the kinds of explanation offered within each, since it is likely that natural languages are constrained by all of the

phenomena mentioned. Each kind of explanation is likely to be able to provide elements which are necessary in a theory of universals, but it is unlikely that any one alone can produce a sufficient theory.

2.5 Lexical categories and functional categories

Grammatical relations (= grammatical functions, grammatical roles, syntactic functions) refer to functional relationships between constituents in a clause. The standard examples of grammatical functions from traditional grammar are subject, direct object, and indirect object. In recent times, the syntactic functions (more generally referred to as grammatical relations), typified by the traditional categories of subject and object, have assumed an important role in linguistic theorizing, within a variety of approaches ranging from generative grammar to functional and cognitive theories. Many modern theories of grammar are likely to acknowledge numerous further types of grammatical relations (e.g. complement, specifier, predicative, etc.).

Matthews' (2007) presents that the term; a grammatical category is "a category of elements with grammatical meaning, as opposed to a lexical category". Accordingly, properties that have grammatical meaning such as number, gender, definiteness, word order, and agreement, among others, are all grammatical categories that bear grammatical distinctions.

In this section, we will focus on nominal and verbal grammatical distinctions indicated by inflections which have influenced on phrase and sentence structure. Namely, it includes ergasivity, verb agreement and case as pertaining to nominal, number, and marker.

2.5.1 Ergativity and Case marked form

Andersen (1988) argued that ergativity is remarkably rare among languages of the African continent. However, it is found in a number of Western Nilotic languages, from the southern Sudan, including Pari. A trace of ergativity has also

been reported by Frajzyngier (1984a, b) for Mandara and other languages from the Chadic branch of the Afroasiatic family.

In case marker the letters S, A and O were first used by Dixon, (1968& 1972) are the most common symbols used for the three primitives. However, some scholars use P (for patient) in place of O such as; Comrie 1978 while Lazard and his colleagues employ X, Y and Z for A, O and S respectively, Lazard (1986,1991).Dixon serves these letters as: "S" stands for intransitive subject, "A" stands for transitive subject, while "O" stands for transitive object.

According to Dixon classification; that languages with a nominative-accusative grammar, naturally group S and A together.while languages of the absolutive-ergative, grammar link S and O. Many languages have some accusative and some ergative characteristics, linking S with A for certain purposes and S with O for other purposes. For any discussion of universal grammar, it is most useful to take S, A and O as the basic grammatical relations, and to define 'subject' in terms of them. The single core argument of an intransitive clause will always be mapped onto the S basic relation. This applies both for verbs that involve volition such as; 'jump', 'speak', 'wink', 'stand', and those that do not such as; 'fall', 'grow', 'die'. For transitive clauses with two core arguments, one will be mapped onto the A relation and the other onto the O relation. If there are three (or more) core arguments, then two will be mapped onto A and O, with the remainder being marked in some other way e.g. by prepositions or postpositions.

Dixon, (1982: 62), point out that there is always a semantic basis for the assignment of A and O relations, and it relates to the prototypical meaning of the verb used. Words belonging to the verb class, in any language, refer to a wide range of actions and states. It is convenient to recognize a number of what we call 'semantic types', each being a class of verbs which has a common meaning component and shared grammatical properties. There are three basic syntactic

relations are grouped together in different ways for nominative-accusative and for absolute-ergative grammatical systems suh as explifies in figure(2.1):

A   ergative

nominative

S

absolutive

Accusative   O
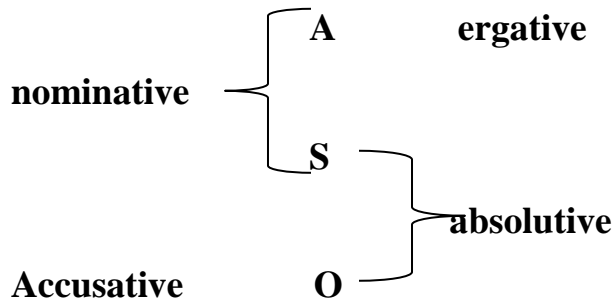
Figure (2.1) represented the grammatical relation

Dixon (1994:6) points out that "languages distinguish between clauses that involve a verb and one core noun phrase (intransitive clauses) and those that involve a verb and two or more core NPs (transitive clauses, including ditransitive as a subtype)". This clauses distinction assumes that languages identify the core arguments with three grammatical relations: subject of intransitive verb (S), subject of transitive verb (agent, henceforth A), and object of transitive verb (O). Typical examples can be (11):

> (11)   a. He (S) left.   intransitive
>
>   b. He (A) wrote a book (O).   transitive

System groups A and S as distinguished from O; that is A and S are marked in the same way whereas O has a different case marker. This system is used by most of European languages, Japanese, Arabic, Turkish, and others. Subjects of transitive and intransitive verbs receive the same marking of nominative case; objects of transitive verbs are marked with accusative case. Consider the following examples from Arabic: (Salih 2000).

> (19)   a. Thahab-a   ?alwaladu.
>
>   leave-PAST: Masculine   the boy:NOM
>
>   'The boy (S) left'
>
>   b. Dharab-a-t   ?albint-u   ?alwalad-a

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beat-PAST-Feminine   the girl:NOM   the boy-ACC

'The girl (A) beat the boy (O)'.

    c.   Dharab-a-t   ?alwalad-a   ?albintu

beat-PAST-Feminine   the boy-ACC   the girl:NOM

'The girl (A) beat the boy (O)'.

In (19a), the verb 'thahab-a' is intransitive taking the past form marker '-a' and agrees with the subject masculinity via zero inflection. The intransitive subject '?alwaladu' takes the nominative case which is indicated by the unmarked form ending in "u". Likewise, in (19b), the verb 'Dharab-a-t' is transitive, marked with the past tense suffix "-a", and agrees with the femininity of the subject by the incorporation of the suffix '-t'. The agent '?albintu' is assigned nominative case signalled with the unmarked form ending in 'u' whereas the object '?alwalad-a' is assigned accusative case marked with the suffix '-a'. (19c) has the same structural meaning as that of (19B) despite of the difference in word order; it remains the same as it is the *girl* who beat the *boy*. However, given that Arabic has a basic VSO constituent order, (19c) conveys a little bit different pragmatic meaning from that of (19b) in that it places focus on *?albint-u*. Such free constituent order is made possible by the differential overt marking of the agent and object arguments of the transitive clause.

2.5.2 The nominative, Accusative Pattern

Parker (1969) argues that direct objects are normally expressed in the accusative case and indirect objects in the dative case. Examples of all three cases (nominative, accusative and Dative),from Russian, Hungarian, Korean (Yang 1994) and Telugu (Prakasam 1985) are given in (18).

(18)   a. UAitel'nic-a da-l-a knig-u EenCAin-e.   Russian

 teacher-Fsg-NOM give-past-Fsg book-ACC woman-DAT

'The teacher gave the book to the woman.'

a′. FenCAin-a/uAitel'nic-a govori-l-a/umer-l-a.

woman-/teacher-Fsg-NOM talk-past-Fsg/die-past-Fsg

'The woman/the teacher talked/died.'

b. Mari-a gyerek-nek ad-ta az órá-t. Hungarian

Mary-NOM the child-DAT give-3sgpast the clock-ACC

'Mary gave the clock to the child.'

The nominative case is the case of the subject in Russian, and the accusative case is the case of the direct object. With intransitive verbs, as in (18a′), the subject is nominative, as with transitive verbs. In the initial analysis of a language, the following rules of thumb can help the analyst recognize the three main cases, nominative, accusative and dative. With respect to the nominative, first, it is normally the same as the citation form for nouns, as noted earlier; second, it is the case of the single argument of an intransitive verb; and third, it translates as the actor argument of an active voice transitive verb. With respect to the accusative, first, it normally only occurs in clauses with transitive verbs and does not correspond to the citation form for nouns, and second, it translates as the undergoer of an active voice transitive verb. With respect to the dative, it does not correspond to the citation form for nouns, and with verbs like *give* it translates as the recipient argument.

Blake (2004:1) uses the terms 'NOM, nominative, DAT, datives, ACC. Accusative' which refers to inflectional marking, and, typically, case marks the relationship of a noun to a verb at the clause level or of a noun to a preposition, postposition or another noun at the phrase level. Consider the following example from Turkish:

(20)   Mehmet   adam-a   elma-lar-t   ver-di

Mehmet.NOM   man-DAT   apple-PL-ACC   give-PAST.3SG

'Mehmet gave the apples to the man.'

In this sentence the three nouns *Mehmet, adam*, and *elmalar* are all marked with respect to the relationship each holds to the verb of the sentence. The noun *Mehmet* does not have an overt suffix (zero marking); it is in the nominative case, which marks it as the subject of this sentence. The suffix *–a* is the dative case marker, which indicates that the noun *adam* is the indirect object of the sentence. Likewise, the noun *elmalar* is marked with the accusative case suffix *–t* which indicates that it is the direct objet of the sentence. The traditional scope of case is, therefore, based on the morphological manifestations with which nouns indicate their relationship to their heads in the structure. More examples:

(1) *domin-**us***   *veni-**t**,*

   master-INFL-NOM-SG   come-PREN

     S   intransitive subject

                ' the master comes'

(2) *serv-**us***   *veni-**t**,*

   slave-INFL-NOM-SG   come-PREN

     S   intransitive subject

               'the slave comes'

(3) *domin-**us***   *serv-um*   *audi-**t**,*

     Master-NOM (A)   slave (O)   V-t

           A - transitive subject

          the master hears the slave

(4) *serv-**us***   *domin-**um***   *audi-**t**,*

      O NPs   v-3ps

         the slave hears the master

Nominative-accusative case systems can be illustrated for Latin: as in examples (1-4), the same case inflection, nominative singular-***us*** (for the second declension, to which the two nouns used here belong) is used for S in (1-2) and for A in (3-4),

while a different inflection, accusative *-urn,* is used for the O NPs in (3-4). In Latin the ending on a verb indicates tense, voice and mood (present, active, indicative in these examples) and also the person and number of the S constituent in an intransitive clause, as in (1-2), or of an A constituent in a transitive clause, as in (3-4). The verbal ending -t indicates third person singular S or A (for the fourth conjugation, to which the verbs 'come' and 'hear' belong (third person, singular, intransitive, and transitive)). If the verb endings were changed to third person plural *-unt (yeni-unt* and *audi-uni)* this would indicate a plural S or A, but convey no information about the O in (3-4). We would then have to mark the S or A NP with nominative plural case inflection –**ī**, e.g.

(1') *domin-**ī***   *veni-**unt**,*

     S-3ppl   *V-PREN*

       'the masters come'

(4') *serv-**ī** domin-**um** audi-**unt**,*

      'the slaves hear the master'

If the O NP is plural it must take accusative plural ending *-**os**,* e.g.

(4") *serv-**us** domin-**os** audi-**t**,*

       A-   O-PL-ACC

      'the slave hears the masters'

We explained that a nominative-accusative system is one in which S is treated in the same way as A, and differently from O. It will be seen that Latin is nominative-accusative both in its case marking and in verb agreement.

(5) *ŋuma*   *banaga-**nʸu***

   father - ABS return-NONFUT

       'father(S) returned'

(6) *yabu*   *banaga-**nʸu***

   mother - ABS   return-NONFUT

'mother(S) returned'

(7) *ŋuma-ɸ*   *yabu-**ŋgu***   *bura-**n***

 father - ABS   mother-ERG   see-NONFUT

          'mother(A) saw father(O)'

(8) *yabu-ɸ*   *ŋuma-**ŋgu***   *bura-**n***

  mother -ABS   father-ERG   see-NONFUT

            'father(A) saw mother(O)'

Here a noun occurs in clear form, with no affix, when it is in **S** function, in (5-6) and also when in **O** function, in (7-8). It can be absolutive case, which has zero(ɸ) realization. Transitive subject function, **A**, is marked by ergative case ending, here -**ŋgu**. (Noun inflections in Dyirbal show case but, unlike Latin, they do not indicate number.) The verb inflections here indicate non-future tense, -**nʸu** for banaga-, which belongs to the –**y** conjugation and -**n** for bura-, from the -/conjugation; in Dyirbal the verb does not cross-reference the person or number of any of S, O or A. Each of (1-8) was given in the normal constituent order for that language. Looking at transitive clauses, in Latin an NP in nominative case (A function) will generally precede one in accusative case (O) whereas in Dyirbal, for NPs whose heads are nouns, the absolutive (O) constituent will generally precede the ergative (A) one. However, since for both Latin and Dyirbal syntactic function is fully specified by case ending, the words from any sentence can potentially be rearranged into any order, without a change of meaning.

Nass, Ashild (2007-2009:157) quotes examples from Meithei or Manipuri where the marking of objects in ditransitive constructions depends on animacy; it is the animate benefactive or recipient that is assigned accusative case rather than the inanimate patient. The object given away (patient) receives the marker of syntactic direct object if it is animate; otherwise the recipient will take the status of

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direct object. Consider the examples below: (23) Meithei (Sino-Tibetan, Burman; (1997:113)

(23) a. əy-nə   maŋon-də   sən-du-bu   pi

I-ERG   he-LOC   cow-that-ACC   give

'I gave that cow to him.'

b. əy-nə   ma-bu   sel   pi

I-ERG   he-ACC   money   give

'I gave him money.'

In (23a), the animate being '*sən*' (cow) that was given away receives the suffix marker of the accusative case *'bu'* while the recipient *'magon'* (him) is assigned the dative case. However, in (23b), being an inanimate, the object given away does not take the accusative case, but rather the recipient that does. Overall, where two animate and inanimate candidates compete for syntactic object position, the animate participant often wins.

2.5.3 The Ergative Absolutive Pattern

The other major case-marking pattern is the ergative–absolutive pattern, exemplified in (23) from Yalarnnga, an Australian Aboriginal language (Blake 1977).

(23) a. Kupi-ku   mila- Ø   tiaca-mu.   Yalarnnga

fish-ERG   fly-ABS   bite-past

'The fish bit the fly.'

b. Mila-ku   kupi- Ø   tiaca-mu.

fly-ERG   fish-ABS   bite-PST

'The fly bit the fish.'

c. Mila- Ø/kupi- Ø   waka-mu.

fly-/fish-ABS   fall-PST

'The fly/the fish fell.'

The ergative case is the case of the actor of a transitive verb in a language of this type, and the absolutive case is the case of the undergoer of a transitive verb; the subject of an intransitive verb, as in (23c), is likewise in the absolutive case.

By using morphological case marking to signify the syntactic functions of arguments, both Arabic and Dyirbal enjoy the property of having a flexible word order. Arabic has the constituent orders VSO/VOS in verbal sentences and SVO in nominal sentences. For Dyirbal, the NPs in absolutive case generally precede those in ergative case; however a free word order is still potential without a change of meaning. Languages with poor morphological systems, like English, use a strict constituent order to show the syntactic functions.

The division of languages into either accusative or ergative is not absolutely accurate. Ergative languages are often reported to have a combination of ergative and accusative features to account for some aspects of their syntax and morphology. That is, an ergative language alternates between using ergative case marking for some constructions and accusative case marking for other constructions. The term used to refer to such a system is split ergative.

Maggie (2005) reports that in the Australian language Dyirbal nouns are marked according to the ergative/absolutive system whereas pronouns are marked according to accusative/nominative system. Compare the following examples from Maggie (2005:165) (25):

(25) a. ŋana   banaga-n^{y}u

          we:NOM   returned

              'We (S) returned.'

      b. nyurra   banaga-n^{y}u

          you:NOM   returned.

          'You (S) returned.'

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c. nyurra   ngana-na buran

    you:NOM we-ACC   saw

     'You (A) saw us (O)'.

The nouns referring to 'father' and 'mother' in (24) are assigned absolutive case when they are subjects or objects; they don't have any marker because the absolutive case doesn't have actual realization. However, they are marked with the ergative suffix '-nggu' when they carry the function (A). In contrast, the first and second person pronouns in (25) are assigned nominative case when they are transitive or intransitive subjects; they are non-inflected because the nominative case has zero inflection. Transitive object pronouns are, yet, marked with the accusative ending (-na).

	Case Pattern	
Term	NOM/ACC	ERG/ABS
Subject of transitive verb [A]	Nominative	Ergative
Subject of intransitive verb [S]	Nominative	Absolutive
Direct object of transitive verb [O]	Accusative	Absolutive

Table (2.1) represents the two case marking patterns are summarized

2.5.4 Instrumental and Genitive

Other cases, such as instrumental and genitive, function analogously in both systems. An important use of the instrumental case is, as the label implies, to mark instrument arguments.

(27) a. FenCAin-a   napisa-l-a   karandaC-em.   **Russian**

     woman-NOM write-PST-Fsg   pencil-INST

'The woman wrote with a pencil.'

b. Bala yugu- ・ ba⟨gul ya⟩a-⟨gu nudin ba⟨gu bari-⟨gu.   **Dyirbal**

NM.ABS tree-ABS NM.ERG man-ERG cut NM.INST axe-INST

'The man cut down the tree with an axe.'

Genitive case is used primarily to mark possession within NPs; it may also be used

to mark arguments of the verb (28b) below.

(28) a. Ich hab-e das Auto des Mann-es gesehen.   **German**

        1sgNOM have-1sgPRES the.ACC car the.GEN man-GEN seen

                        'I saw the man's car.'

b. Bayi waal-Ø   baun ugumbil-u   bagul   **Dyirbal**

NM.ABS boomerang-ABS NM.GEN woman-GEN NM.ERG

yaa-gu buan. man-ERG saw

'The man saw the woman's boomerang.'

The genitive case on *des Mannes* 'the man's' indicates that it is the possessor

of *das Auto* 'the car' in the German example, and likewise in the Dyirbal sentence,

the genitive case on *ba‹un ;ugumbil‹u* 'the woman's' signals that it is the possessor

of *bayi wa‹al* 'boomerang'. Thus, the contrast between accusative and ergative

case marking concerns the marking of the most syntactically important terms, and

the cases which code indirect objects and non-terms function basically the same

way in both systems.

While these correlations of subject with nominative case, direct object with

accusative case and indirect object with dative case in languages with an

accusative case-marking system are valid in many instances, it is nevertheless not

always possible to correlate case with grammatical relations in this way. In

Russian, German, Latin and many other Indo-European languages, many verbs

take a second argument in something other than the accusative case, as illustrated in (29); the Latin example is from Michaelis (1993).

(29) a. UAitel'nic-a pomog-l-a EenCAin-e/*EenCAin-u.   **Russian**

   teacher-NOM help-PAST-fsg woman-DAT/woman-ACC

   'The teacher helped the woman.'

   b. Vivor-um memin-i. Latin

   living-GEN remember-1sg

   'I remember the living

The Russian verb *pomoA'* 'help' takes its second argument in the dative case, while the verb *memini* 'remember' in Latin takes its second argument in the genitive case

2.6 Verb Agreement

Verb agreement refers to a system in which the form of the verb reflects the person, number, and/or gender of one or more arguments. Verbs normally agree only with terms, i.e. arguments which bear the Grammatical Relations of subject, object, or secondary object. If a verb agrees with only one argument, it will be normally the subject; if two, they will be the subject and direct object; if three, they will be the subject, direct object, and indirect object.

Portuguese is another language in which the verb agrees with its subject. Unlike English, Portuguese verbs show agreement marking in all persons and most tenses. Only the present tense forms are listed in (21).

(21) Portuguese

   eu falo   'I speak'   n´os falamos   'we speak'

   tu falas   'you (sg) speak' v´os falais   'you (pl) speak'

   ele fala   'he speaks'   eles falam   'they speak'

An example of a language which agrees with subject, primary object, and secondary object is Southern Tiwa.11 Agreement with these three arguments is shown in a single portmanteau prefix, as illustrated in (23–24).

(23) Southern Tiwa (North American; Allen and Frantz 1983)

     a. bey-mu-ban

      2sg:1sg-see-past

      'You (sg) saw me.'

     b. a-mu-ban

      2sg:3sg-see-past

      'You (sg) saw him.'

     c. i-mu-ban

       1sg:2sg-see-past

      'I saw you (sg).'

     d. ti-mu-ban

      1sg:3sg-see-past

      'I saw him.'

(24) a. ka-khwien-wia-ban

      1sg:2sg:3sg-dog-give-past

      'I gave you (sg) the dog.'

    b. kam-khwien-wia-ban12

     1sg:2sg:3pl-dog-give-past

     'I gave you (sg) the dogs.'

    c. ben-khwien-wia-ban

     2sg:1sg:3sg-dog-give-past

     'You (sg) gave me the dog.'

    d. ta-khwien-wia-ban seuanide

      1sg:3sg:3sg-dog-give-past man

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'I gave the man the dog.'

As noted above, verb agreement normally reflects the grammatical features of person, number, and/or gender. An example of verb agreementwhich reflects gender is found in Russian, where the verb agrees with its subject for person and number in non-past tenses, and for gender and number in past tenses.

Typical examples can be given from Daju:

(15) a. a-nnɛ   k-a-ɗo

Pl.pro   PST-M-a-AGR-go

'we(S) went'

b. ig-i   k-i-ɗo

S-2sg (S)   k-PST-M-i-AGR-go

'you went'

c. iis-ɛ   k-i-si   ɓosk-ɛ

dog-ERG   M-PST-i-AGR-TNS-eat   rabbit-ABS

'The dog (A) ate the rabbit (O)'.

The verbs in (15a, b, and c) agree with their intransitive and transitive subjects with respect to person and number; objects are cross-referenced. Hence, Daju is an instance of ergasive/abslutive agreement marking languages; languages that cross-reference both S and A in the same way. Daju case system, then, aligns core arguments as SA/O and differentiates between them by using morphological marking, subject-verb agreement, or even syntactic position when the former markers do not work.

2.6.1 Subject Imperative Formation (empty cateogary "S")

In principles and parameters terms, 'empty category refers to an element which occupies a syntactic position but has no phonetic realization' (Matthews 2007:121). Such are those elements which do not have overt existence in the surface structure of the sentence but they are posited to have syntactic positions

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which are licensed or required by the structural relationships between the sentence elements. In (23b,c,d) examples of Daju finite clauses which do not contain overt subjects, that is, their subject positions are occupied by empty categories designated as *pro*. It is commonly known that languages like Italian, Spanish, and Semitic languages allow subject-less finite clauses. Consider the following examples:

(23) a. katab-a-ø　　　　　　　　-ddars-a　　　(Arabic)

　　　　　Write-PST-SBJ.3SGM　　DEF-lesson-ACC

　　　　　　'he wrote the lesson'/' literally translated as *wrote the lesson'

　　　b. ø-wuri　　　　　mæg-ɛ　　　　　　　　　addressee　　　(Daju)

　　　　　　V　　　　　　　O

　　　　pro.2nd-drink-IMP　　water-3SG-ACC

　　　　　'you drink water' the literally translated equivalent is *drink water

　　　c. ɗo!　　　　go!

　　　d. ɓo!　　　　come!

Daju, English, and Arabic are languages which contain finite clauses that do not have apparent subjects; they are thus called pro-drop languages. In (23a) and(23b), the subject is encoded in the form of the verb; the verb inflects to mark its subject in terms of person, number, and gender; hence there appearance to be no need for overt subject once one is established. Other languages such as English, French, however, with few English exceptions, do not allow finite clauses without overt subjects; henceforth, they are called non-pro-drop languages.

Cook et al (1996) point out that difference between pro-drop languages and non-pro-drop languages would be of little significance if they could not be generalized to universal grammar. The group of pro-drop languages, which includes Arabic and Italian, according to Cook, allow both null-subject sentences and inverted declaratives in which the verb precedes the subject. The non-pro-drop languages

such as English and French do not license declarative sentences without subjects or with verb-subject order. Let us see the following examples of inverted declaratives:

(24) a. ?aqbal-a-ø   -lləyl-u   (Arabic)

　　　　Fall-PAST-SBJ.3SGM   DEF-night-NOM

　　　　　　V   S

　　　　　'The night fell'

　　 b. Cade la notte (falls the night)   (Italian: Cook et al 1996, p 56)

　　　　　V   S

　　　　　'the night falls'

　　 c. ø woŋ-i ki-woŋ   (Daju)

　　　　　S   V

　　　　　' night fell'

In (24) above, while the English equivalent declarative sentences have the order subject-verb, Arabic and Italian examples offer verb-subject order.

Corresponding to empty category principle, pro-drop is thus a parameter along which languages vary. It affects features related to whether a language allows finite clauses without apparent subjects or with verb-subject order. Empty category principle also relates to the phenomena of auxiliary-less clauses and null-determiner phrases; as in Daju clause (24c). Subject is by far the most important grammatical relation, and accordingly there are many more syntactic phenomena which target subject than the other relations. A construction which seems to come close to universally targeting subjects is imperative formation. In this construction the second-person subject is normally omitted and is interpreted as the addressee, and the verb is in a special, usually tenseless form, as illustrated in (11).

(30) a. Open the door!

　　 a'. Gmor/gimru!   **Modern Hebrew**

　　 b. Finish! (Msg/Mpl addressee)

b′. Gimri/gmórna!

　　　Finish! (fsg/fpl addressee)

　　c. Govori/govorite!   **Russian**

　　　Speak! (sg/pl addressee)

　　d. Iyáyaye/iyáyayo!   **Lakhota**

　　　Go away! (fem/masc speaker)

　　e. Jam bei chàh béi ngóh la!   **Cantonese**

　　　　pour cup tea for me prt

　　　　'Pour me a cup of tea!'

　　f. ø wuri   mægɛ (fsg/f 2nd pl addressee)   **Daju**

　　　　'drink water'

In all of these commands the addressee is understood to be the subject of the verb, and it is reasonable to expect that this would be the case everywhere. In this case Daju word order is VO where S is omitted; while Malagasy presents a very unusual, type of imperative.

(31) a. Manasa ny lamba!   **Malagasy**

　　　　wash the clothes

　　　　'Wash the clothes!'

　　b. Sasao ny lamba!

　　　be.washed the clothes

　　　'The clothes be washed!'

　The first example (31a) looks similar to those in (30), but the second one is different. It is a *passive* imperative, in which *ny lamba* 'the clothes' is the syntactic subject, just as in (31b). So in (31b) it cannot be the case that the addressee is the subject, since *ny lamba* 'the clothes', the subject, is not the addressee. Rather, the addressee is the understood *agent* of the verb *sasan-* 'wash'. Hence being the addressee of an imperative is normally a property of subjects, and therefore this

construction can be used as a useful test for subject-hood in a language. However, it is not an exclusive property of subjects universally, as the Malagasy examples in (31).

2.7 Coreference

Coreference occurs when two or more expressions in a text refer to the same person or thing; they have the same referent, e.g. *Bill$_i$ said he$_i$ would come*; the proper noun *Bill* and the pronoun *he* refer to the same person, namely to Bill. Coreference is the main concept underlying binding phenomena in the field of syntax. The theory of binding explores the syntactic relationship that exists between coreferential expressions in sentences and texts. When two expressions are coreferential, the one is usually a full form (the antecedent) and the other is an abbreviated form (a pro-form or anaphor). Linguists use indices to show coreference, as with the$_i$ index in the example; *Bill$_i$ said he$_i$ would come*. The two expressions with the same reference are coindexed, hence in this example Bill and he are coindexed, indicating that they should be interpreted as coreferential.

When exploring coreference, there are numerous distinctions that can be made, e.g. anaphora, cataphora, split antecedents, coreferring noun phrases, etc. When dealing with pro-forms (pronouns, pro-verbs, pro-adjectives, etc.), one distinguishes between anaphora and cataphora.

When the pro-form follows the expression to which it refers, anaphora is present (the pro-form is an anaphor), and when it precedes the expression to which it refers, cataphora is present (the pro-form is a cataphor). These notions all illustrated as follows:

2.7.1 Anaphora

a. *The music $_i$ was so loud that it $_i$ couldn't be enjoyed*. The anaphor *it* follows the expression to which it refers (its antecedent).

b. *Our neighbors$_i$ dislike the music. If they $_i$ are angry, the cops will show up soon.* The anaphor *they* follows the expression to which it refers (its antecedent).

2.7.2 Reflexive of Subject

Another construction that involves subjects is reflexivization. The issue here is which argument can be the antecedent of the reflexive pronoun. Examples from Norwegian (Hellan 1988) and English are given below.

(32) a. Jon fortal-te meg om *seg selv*.   **Norwegian**

   John tell-PAST 1sgACC about self

   'John told me about himself.'

   b. *Vi fortal-te Jon om seg selv.

    1plNom tell-past John about self

    *'We told John about himself.'

(33) a. James$_i$ saw himself$_i$. *Antecedent = subject* **English**

a′. James$_i$' sister$_j$ saw herself$_j$/*himself$_i$.

b. Sam$_i$ told Miriam$_j$ about herself$_j$/*$_i$. *Antecedent = direct object*

b′. Sam$_i$ told Miriam$_j$'s brother$_k$ about himself$_{i/k}$/*herself$_j$.
c. Miriam$_i$ talked to Sam$_j$ about himself$_j$/*$_i$. *Antecedent = indirect object*

c′. Miriam$_i$ talked to Sam$_j$'s sister$_k$ about herself$_{i/k}$/*himself$_j$.

d. Miriam$_i$ talked with Sam$_j$ about himself$_j$/*$_i$. *Antecedent = non-term*

d′. Miriam$_i$ talked with Sam$_j$'s sister$_k$ about herself$_{i/k}$/*himself$_j$.

The class of arguments that can be the antecedent for reflexive pronouns in a language always includes subjects, and in some languages, e.g. Norwegian, there is a reflexive pronoun (*seg selv*) that can only have a subject as an antecedent, as (32) illustrates. In such a language, the ability to be the antecedent of such a reflexive pronoun would be a significant subject property. However, in other languages, such as English, it is not a unique property of subjects, as (33) clearly shows. While the antecedent can be one of these grammatical relations or even a non-term

as in (d), the possessor of a term or non-term cannot serve as an antecedent within a clause, as the primed examples show. (A possessor can be the antecedent of a reflexive within an NP, e.g. *Mary's picture of herself*.) The fact that English reflexive pronouns express gender allows one to see clearly that the antecedent in (33a′) must be *sister*, not the possessor *James'*, since English reflexive pronouns must agree with their antecedent in person, number and gender. The other three primed sentences are ambiguous, because either the subject or the other argument can be construed as the antecedent; in none of them can a possessor be so interpreted, however. Hence the strongest generalization one can make is that subjects are universally among the possible antecedents of reflexive pronouns, but again this is not an exclusive property of subjects.

One clarification is in order. It is often the case that a language has more than one way of realizing a particular phenomenon, and this claim applies to the phenomenon as a whole and not to every way it is manifested. A concrete example of this can be seen in reflexivization. In some languages, there is more than one reflexive pronoun, and different ones may have different conditions on their potential antecedents. Consider the following additional examples from Norwegian.

    (34) a. Vi fortal-te Jon om ham selv. Norwegian

           1plnom tell-past John about self

           'We told John about himself.'

      b. *Jon snakk-er om ham selv.

          John talk-pres about self

          'John talks about himself.'

Norwegian has a complex system of reflexive elements, and two are of interest here, *seg selv* and *ham selv*. As the examples in (32) show, *seg selv* must be bound by the subject of the sentence, whereas *ham selv* cannot be bound by the subject; it

must be bound by a non-subject, normally the direct object, as in (34). If one looked only at *ham selv*, one might think that Norwegian reflexivization contradicted the claim made above, because the antecedent of *ham selv* must not be a subject but rather one of the other terms. However, when one looks at reflexivization as a whole in the language, it becomes clear that this generalization is not contradicted, because there is a different reflexive pronoun that is restricted to subject antecedents only, namely *seg selv*.

2.8 WH-question formation

Imperative formation and reflexivization are good tests for subjecthood, since they always target subjects, even though not always exclusively. The next two constructions are somewhat the opposite: they are normally unrestricted, but when they are restricted to a single term type, it is always subject. The constructions are WH-question and cleft formation. In English, WH-question formation is unconstrained with respect to grammatical relations, and the same is true with respect to cleft formation. Examples are given below in (35):

(35) WH-question formation

a. Who ate my sandwich?   *who* = subject

b. Who did Pat see?   *who* = direct object

c. Who did Leslie give the tickets to?   *who* = indirect object

d. With whom did Kim go to the party?   *whom* = object of preposition *with*

e. Whose car did Dana drive?   *whose* = possessor

f. Who is Chris taller than?   *who* = object of comparative *than*

2.9 Split systems

In some languages we find both the ergative and accusative case marking patterns. For example, pronouns may take Nominative–Accusative marking while common nouns take Ergative–Absolutive marking; or animate nouns may take

Nominative–Accusative marking while inanimate nouns take Ergative–Absolutive marking.

The term split system refers to a situation in which both ergative and non-ergative patterns are found in the grammar of a single language. In other words, one sub-system of the grammar follows an ergative pattern while a different sub-system does not. A typical example is found in Pitjantjatjara, another Australian language:

(13) Pitjantjatjara (Australia; Merrifield et al. 1987, prob. 208)

a ku_pir-pa ŋalyapityaŋu.

kangaroo came

'The kangaroo came.'

b yu al-pa pakanu.

daughter got.up

'(My) daughter got up.'

c ŋali ŋalyapityaŋu.

we(dual) came

'We (2) came.'

d ɲura pakanu.

you got.up

'You got up.'

e ampin-tu ku_pir-pa ɲaŋu.

Ampin kangaroo saw

'Ampin saw the kangaroo.'

f ɲura yuɳʈ al-pa kulinu.

you daughter heard

'You heard my daughter.'

g. kuɭpir-tu ɲura-ɲa ɲaŋu.

kangaroo you saw

'The kangaroo saw you.'

h. yuɳʈal-tu   ŋali-ɲa   kulinu.

  daughter   we(dual)   heard

    'My daughter heard us (2).'

i. ŋali   kuɭpir-pa   ɲaŋu.

we(dual)   kangaroo   saw

 'We (2) saw the kangaroo.'

The case endings for nouns and pronouns are listed in (14). This chart shows that pronouns follow a Nominative–Accusative pattern, with the same (zero) case marker being used for intransitive subjects and transitive subjects and a different marker (-ɲa) being used for transitive objects.

Common nouns and proper names, on the other hand, follow an ergative pattern, with the same case marker (-pa) being used for intransitive subjects and transitive objects and a different marker (-tu) being used for transitive subjects.

(14) Pitjantjatjara case markers

	pronouns	common nouns/proper names
intransitive subjects (S)	–Ø	–pa
transitive subjects (A)	–Ø	–tu
transitive objects (P)	–ɲa	–pa

Some further examples of split-ergative case-marking systems, taken from Dixon (1979:87), are listed in (15). The Cashinahua third person pronouns illustrate a tripartite pattern, in which three distinct forms occur (15b).

(15) **a**. Dyirbal

	1st & 2nd person pronoun	3rd person Pronoun	Common noun
intransitive subjects (S)	–Ø	–Ø	–Ø
transitive subjects (A)	–Ø	–ŋgu	–ŋgu
transitive objects (P)	–ɲa	–Ø	–Ø

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b. Cashinahua (Peru) 1st & 2nd person pronoun   3rdp.Pronoun Common noun

intransitive subjects (S)	–Ø	– habu	–Ø
transitive subjects (A)	–Ø	– habũ	–nasalization
transitive objects (P)	–a	– haa	–Ø

These examples illustrate split systems based on the person–animacy hierarchy, which is shown in (16). In almost every instance of split ergativity in which case marking is based on the inherent properties of the noun phrases themselves, categories near the left end of the scale will follow the accusative pattern, while categories near the rightend of the scale will follow the ergative pattern. The dividing point between the two patterns, however, varies from language to language, as we have already seen.

2.10 Previous Studies.

Aviles, (1997) conducts a thesis which was submitted to the Graduate Faculty of the University of North Dakota in partial fulfillment of the requirements for the degree of Master of Arts in the Phonology and morphology of the Dar Daju language, argues that, a recurrent theme among linguists is the need for more languages to be analyzed, and more descriptions to be available for a variety of reasons. The main purpose of this thesis is to provide essential information on the Dar Daju language of Chad. An other work done byThelwall, (1981) in phonology, claimed that Daju lagawa language has twenty two phonemes, with exception [z] ,but, Suleiman I. (2014) work in Daju Lagawa phonology and points out that there are some words that contain the sound /z/as /uzu/, /ize/ other claimed that Thelwall did not find words end in [p] it is rare but there are word end in /p/ sound for example /timap/,the singular pronoun /ap/ also

Thelwall said that no word in Daju language begin with /n/, but there are many words begin with /n/ as /nʌŋ/, /na/, /naa/,/ntolunne/. In order to provide adequate evidence for existence phoneme, it is important to examine the context in which various sound can occur. The last work done by Abbakar I.(2000) in the Phonology and Linguistic Analysis of the Noun Morphology of The Daju Language argues that Daju has thirteen word classes; also the study has dealt with several important phonological issues. The stress has significant influence on the open central vowels /a/, so if the stress has appeared on the syllable with /a/, then it sounds /e/. Thus this analysis presents evidence for only five phonemic vowels. The study has also, proposed a tentative orthography of Daju, so it can be written.

In spite of the great history and rich oral literature of the Daju community, the Daju language has not been fully standardized; it does not have a well-established script. Moreover, apart from the works of Thelwall (1981), Greenberg (1963), Abbakar (2000), and Suleiman I. (2014), there has been no systematic survey on the grammar of the Daju language. Hence, there is a lot in Daju that opens up for further investigation. This work is extent to previous work but in another field of linguisticts that concerns with syntax of Daju language in specific area that is Lagawa in South Kordofan State.

2.11 Summary of chapter two

This chapter gives an elaborate theoretical account on the syntax of phrase structure and grammatical categories within the framework of the generative grammar approach. It begins with brief exploration of fundamental assumptions that are closely related to the research questions and are important for understanding the subject matter of the study. The body of the chapter bears a detailed distinction of the elements of phrase structure along with the X-bar representation of phrase structure and theories constraining X-bar syntax. Grammatical categories, such as lexical categories and functional categories, nominative, accusative, absolutive, and ergative pattern, split systems, case, agreement, are also given a considerable part in the discussion of ward order. The literature has so far been reviewed is hoped to provide insight into the problem of the study and support for the discussion of the research findings and results.The chapter ends with a review of relevant previous studies on the Daju language.

CHAPTER THREE

THE ANALYSIS OF DAJU SYNTAX

3.0 Introduction

Syntax is generally treated as separate sub-fields in linguistics. This is because words and sentences are different in certain fundamental ways. Describing the arrangement of words in a sentence will require some additional concepts. There are two fundamental aspects of a sentence structure. First, the words of any language can be classified according to their grammatical properties. These classes are traditionally referred to as parts of speech (noun, verb, etc.); linguists refer to them as syntactic categories. In describing the word-order patterns of the language, we need to refer to syntactic categories since it is obviously impossible to list every possible combination of specific words. Second, the words in a sentence are not organized as a simple list. Rather, words cluster together to form groups of various sizes; these groups are referred to as constituents. The word-order patterns of human languages cannot be described adequately without reference to constituents.

3.1 Constituent Structure

Sentences are strings of words belonging to particular grammatical categories "parts of speech" with no internal organization. We know, however, that such "flat" structures are incorrect. The words are grouped into natural units. The words in the sentence *prɪccɛ kɪɲak ɪɪsɛ 'The child found the dog*'. May be grouped into [the child] and [found the dog], corresponding to the subject and predicate of the sentence. A further division gives [my child] and then [[found] [this dog]], and finally the individual words: [[my] [child]] [[found] [[this] [dog]]]. It's sometimes easier to see the parts and subparts of the sentence in a tree diagram:
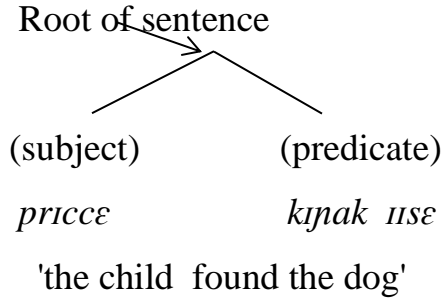
Root of sentence

(subject)　　　　(predicate)

prɪccɛ　　　　*kɪɲak　ɪɪsɛ*

'the child found the dog'

Figure (3.1) representation of Constituent Structure

The "tree" is upside down with its "root" encompassing the entire sentence, "*prɪccɛ kɪɲak ɪɪsɛ*," and its "leaves" being the individual words, *prɪccɛ, kɪɲak, ɪɪsɛ*. The tree conveys the same information as the nested square brackets.

The hierarchical organization of the tree reflects the groupings and subgroupings of the words of the sentence. The tree diagram shows, among other things that the phrase *kɪɲak ɪɪsɛ* divides naturally into two branches one for the verb *kɪɲak*   and the other for the direct object *ɪɪsɛ*. A different division, say, *found this* and *dog*, is unnatural. The natural groupings or parts of a sentence are called constituents. Various linguistic tests reveal the constituents of a sentence. The first test is the "stand alone" test. If a group of words can stand alone, they form a constituent. For example, the set of words that can be used to answer a question is a constituent. So in answer to the question "What did you find?" a speaker might answer *this dog*, but not *found my*. *This dog* can stand alone while *found my* cannot. The second test is "replacement by a pronoun." Pronouns can substitute for natural groups. In answer to the question "Where did you find this dog?" a speaker can say, *ak kɪɲak ap tə aarɛ* "I found him in the house." Words such as *do* can also take the place of the entire predicate *kɪɲak ɪɪsɛ*, as in *John kiɲak ɪɪsɛ la Mary* "John found this dog and Mary".

If a group of words can be replaced by a pronoun or a word like *do*, it forms a constituent. A third test of constituency is the "move as a unit" test. If a group of

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words can be moved, they form a constituent. For example, if we compare the following sentences to the sentence

"*my child found* ~~*this dog*~~,"

we see that certain elements have moved the strikethrough from its position:

It was *this dog that my child found*____

This dog was found by my child.

In the first example, the constituent *this dog* has moved from its position following *found*; in the second example, the positions of *this dog* and *mychild* have been changed. In all such rearrangements the constituents *this dog* and *my child* remain intact. *Found my* does not remain intact, because it is not a constituent. In the sentence

"my child found this dog,"

The natural groupings or constituents are the subject *my child*, the predicate *found this dog*, and the direct object *this dog*. Some sentences have a prepositional phrase in the predicate. Consider the following example:

(1) ɪɪsɛ   kawaŋ   tə ʃalaccɛ

The dog   played   in the garden.

Subject   verb   indirect object

We can use our tests to show that *tə ʃalaccɛ 'in the garden'* is also a constituent, as follows: Where did the dog play? *'In the garden' tə ʃalaccɛ (*stand alone) ɪɪsɛ *kawaŋ tiee 'there'*. (replacement by a pronoun-like word 'tiee'*) In the garden* is where the dog played. (move as a unit) It was *in the garden* that the dog played. As before, our knowledge of the constituent structure of a sentence may be graphically represented by a tree diagram.

The tree diagram for the sentence *ɪɪsɛ kawaŋ tə ʃalaccɛ* "The dog played in the garden" is as follows: in this diagram "triangle" stand for constituents.

(1)   ɪɪsɛ *kawaŋ* tə ʃalɑɕɛ

NP   VP

ɪɪsɛ   *kawaŋ* tə ʃalɑɕɛ

V   PP

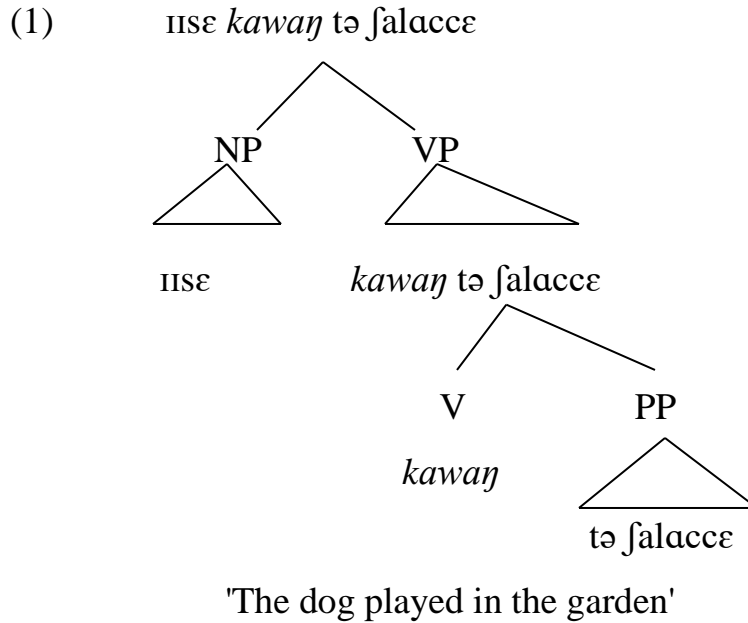*kawaŋ*

tə ʃalɑɕɛ

'The dog played in the garden'

Figure   (3.2) Phrase structure representation

In addition to the syntactic tests just described, experimental evidence has shown that speakers do not represent sentences as strings of words but rather in terms of constituents. These results show that speakers perceive sentences in chunks corresponding to grammatical constituents. Every sentence in a language is associated with one or more constituent structures. If a sentence has more than one constituent structure, it is ambiguous, and each tree will correspond to one of the possible meanings. For example, the sentence "a desk for a lady with thick legs and large drawers" has two phrase structure trees associated with it. In one structure the phrase [a lady with thick legs and large drawers] forms a constituent. For example, it could stand alone in answer to the question "Who did you buy an antique desk for?" In its second meaning, the phrase with thick legs and large drawers modifies the phrase a desk for a lady, and thus the structure is [[a desk for a lady][with thick legs and large drawers]] this will be cleared in tree diagram when we discuss the ambiguity in this chapter.

3.2 Syntactic Categories.

Each grouping in the tree diagrams of "*prɪccɛ kɪɲak ɪɪsɛ*" is a member of a large family of similar expressions. For example, the *pr-ɓaɓa-nʌŋ* belongs to a Sentence Structure family that includes *John*, *aʃkaŋ 'my goats'*,kuccɛ ma paʃ '*this white cat*' , ap '*he*', , and so on. We can substitute any member of this family for the child without affecting the grammaticality of the sentence, although the meaning of course would change.(2)

(2) a. John kɪɲak ɪɪsɛ   'N-V-N'
'John found the dog'.

b.ʃkaŋ kɪɲak ɪɪsɛ   'N-V-N'
'My goats found the dog'.

c.kuccɛ ma paʃ kɪɲak ɪɪsɛ   'N-Det-Adj-V-N'
'This white cat found the dog'.

d.ap kiɲak iisɛ   'Pro-V-N'

ʿs/he found the dag'

A family of expressions that can substitute for one another without loss of grammaticality is called a syntactic category. *Prɪccɛ, John*, *Aʃkaŋ, Kuccɛ ma paʃ* and ap belong to the syntactic category *noun phrase* (NP), one of several syntactic categories in Daju and every other language in the world. NPs may function as the subject or as an object in a sentence. NPs often contain a determiner as (a or the) and a noun, but they may also consist of a proper name, a pronoun, a noun without a determiner, or even a clause or a sentence. Even though a proper noun like *John* and pronouns such as *ap* 'he/ him' and *ig 'you'* are single words, they are technically NPs, because they pattern like NPs in being able to fill a subject or object or other NP slots.

(3) (a) *John kɪɲak ɪɪsɛ*

John found the dog.

(b) ap kɪŋak ɪɪsɛ

    'He found the dog'.

(c) wʊrukɛ adrow ɪzɪkɛ

    'women love dogs.'

(d) ɪɪsɛ kadrow ap

    ' The dog loved him.'

(e) ɪɪsɛ kadrow John

    ' The dog loved John.'

3.3 Substitution Classes.

There are other syntactic categories. Our lexicon of words, then, is partitioned into sets categories and some of our knowledge about which groups of words are grammatical is based on membership in these sets. We can use the traditional grammarian's terminology for these sets. *Príccɛ̄*, for instance, is a noun; *kádó* is a verb; *ʃàgádɛ̄* is an adjective, and so on. A string that is made up of a noun followed by a verb followed by a noun is judged to be a grammatical sentence in Daju (witness (4a, c, e&f)) whereas a string made up of two adjacent nouns is not (compare (4b&d)). If we were to look at a large assortment of strings, we would be able to discover patterns that distinguish the grammatical sentences from the ungrammatical sentences. We would discover that categories have a particular distribution in the grammatical strings.

Zellig Harris argued that morpho-syntactic category should be defined in just these terms. Specifically, "noun," "verb" and so on are "substitution classes" of vocabulary items. They are substitution classes in the sense that there is a set of positions within a sentence into which any member of that class can be substituted preserving the grammaticality of the sentence. For instance, any word that can be grammatically placed in the spot marked with " " in (4) falls within the subset of vocabulary items we know as "verb." the expression *found the dog* is a verb phrase

(VP). A verb phrase always contains a verb (V), and it may contain other categories, such as a noun phrase or prepositional phrase (PP), which is a preposition followed by an NP, such as *in the garden, on the shelter, with a dokey*. the VPs are those phrases that can complete the sentence "prɪccɛ(NP)_____ .".

(4) (a) kor kaccɪnɛ   VP   "saw a donkey"

   (b) awædɛ   N   "a bird"

   (c) kaɗo   V   "left"

   (d) ʃagaldɛ   Adj.   "smart"

   (e) kasi eejɛ   VP NP   "ate the meat"

   (f) kɪŋak sʊrnɛ tə təgtoganɛ   VP NP$_1$NP$_2$ " found the book on the table"

Inserting (a), (c), (e), and (f) will produce grammatical sentences, whereas the insertion of (b) or (d) would result in an ungrammatical sentence. Thus, (a), (c), (e), and (f) are verb phrases.

3.3.1 Functional Categories.

Another less familiar category is auxiliary (Aux), which includes the verbs have, had, be, was, and were. Aux and Det are functional categories, so called because their members have a grammatical function rather than a descriptive meaning. For example, determiners specify whether a noun is indefinite or definite (a boy versus the boy), or the proximity of the person or object to the context (*prɪccɛ ma* "this boy" versus *prɪccɛ maa* "that boy"). Auxiliaries provide the verb with a time frame:

   (5)a. John ɗoho tik

     "John is going today"

    b. John kadoho

     'John left'

    c. John will dance.

whether ongoing, as in (a) the verb completed in the past as illustrated in (b); or occurring in the future as in (c).

Lexical categories typically have particular kinds of meanings associated with them. For example, verbs usually refer to actions, events, and states (*awiz* "kick", *bakticɛ* "marry", *adrow* "love"); adjectives to qualities or properties (*kəlæŋ* "old"); common nouns to general entities (*iisɛ* "dog", *təmoʃɛ* "elephant",*ærɛ* "house"); and proper nouns to particular individuals (John, Ahmad) or places (Khartoum Stadium) or other things that people give names to, such as commercial products (Coca-Cola, Sayga, weta). But the relationship between grammatical categories and meaning is more complex than these few examples suggest. For example, some nouns refer to events (*bakticɛ* "marriage"). Prepositions are usually used to express relationships between two entities involving a location such as:

(6) a. Priccɛ a-tari artignɛ

   'the boy is in the room'

  b. kuccɛ a-toni artignɛ

  'the cat is under the bed'

But this is not always the case; the prepositions *tari,* and *toni* are not locational; because of the difficulties involved in specifying the precise meaning of lexical categories, we do not usually define categories in terms of their meanings, but rather on the basis of their syntactic distribution (where they occur in a sentence) and morphological characteristics. For example, we define a noun as a word that can occur with a determiner (the boy) and that can take a plural marker (boys), among other properties.

All languages have syntactic categories such as N, V, and NP. Speakers know the syntactic categories of their language, even if they do not know the technical terms. Our knowledge of the syntactic classes is revealed when we substitute

equivalent phrases, as we just did in examples (1) and (2), and when we use the various syntactic tests that we have discussed.

3.4 Phrase Structure Diagram and Rules.

An important part of our task in analyzing the grammatical structure of a sentence is to identify: (a) the constituent parts from which the sentence is formed; and (b) the order in which these constituents occur. For example, the sentence in (8) consists of three constituent parts: a noun phrase followed by a verb followed by another noun phrase.

(8) f. iisɛ máá │ sija   ɟeiɛ ɓatal

        NP   V   NP

        'that dog eats bad meat'

In sentence (8), for example, each noun phrase is composed of two words. So it is not enough to list the immediate constituents of the sentence in the correct order. Each of these constituents must in turn be analyzed as to its sub-constituents and their linear order, and so on down to the word level.

The most commonly used method of representing information about constituency and linear order is the tree diagram. A simple tree diagram is shown in (3). This tree contains three nodes. The top-most node, *A*, is the mother of the two lower nodes, *B* and *C*. *B* and *C* are daughters of the same mother, and so we refer to them as sister nodes. Straight lines are used to connect mothers to their daughters.
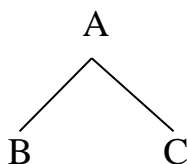
A
/ \
B   C

Figure (3.3) the Tree diagram represents the concept of constituents

When a tree of this kind is used to represent the structure of a grammatical unit (e.g. a phrase or sentence), the mother node represents the larger unit, while the

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daughter nodes represent its constituents (or sub-parts). The linear order of the constituents is shown by the left-to-right order of the corresponding nodes. The lines from mother to daughter represent the part–whole relationship.thus, Unit *A* is composed of two constituent parts, *B* and *C*, which occur in that order.

When tree diagrams are used to represent linguistic structure, the node labels provide two kinds of information about each unit: (i) its syntactic category (e.g. Noun, Verb, etc.); and (ii) its "size," or level in the grammatical hierarchy (word, phrase, clause, etc.). The list in (9) shows the category symbols that are generally used. A simple tree structure using these labels is given in (4). This tree represents a prepositional phrase which consists of two parts, a preposition followed by a noun phrase. The noun phrase, in turn, is composed of a determiner followed by a noun.

(9) Word level   **Phrasal**

N = Noun   NP = Noun Phrase

A = Adjective   AP = Adjective Phrase

V = Verb   VP = Verb Phrase

P = Preposition   PP = Prepositional Phrase

Adv = Adverb   S = Sentence or Clause
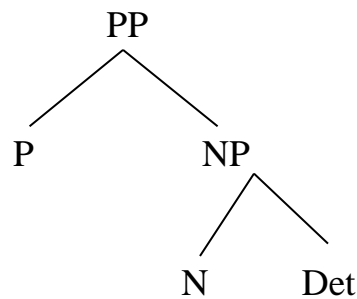
Det = Determiner

Conj = Conjunction

Figure (3.4) the diagram represents the 'consist of relationships'

In (4), this prepositional phrase contains no words. Obviously we need a way to represent the actual words that make up the phrase, in addition specifying their part of speech. We will represent words as daughters of nodes which bear lexical (word-level) category labels, as shown in (5).
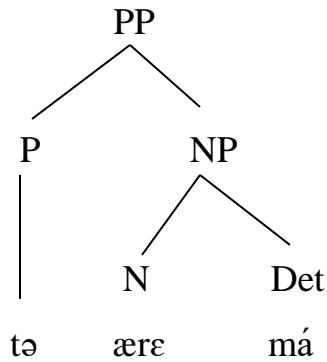
```
              PP
            /    \
          P       NP
          |      /    \
          |     N      Det
          tə    ærɛ    má
```

Figure (3.5) representation of PP.

Nodes which contain specific lexical items such as *tə*, *ærɛ*, and *má* will never themselves have daughters; they mark the bottom end of the tree structure. Nodes of this type, which do not dominate any other node, are called terminal nodes. Lexical items such as *tə*, *ærɛ*, and *má* are terminal elements, and the sequence of terminal elements at the bottom of a tree (e.g. *in this room*) is called the terminal string. We say that a non-terminal node dominates all of its daughter nodes, the daughters of its daughters, daughters of its "grand-daughters," etc. A mother immediately dominates its daughters. This terminology gives us a way to define constituents in terms of tree structure: The term `constituent' is used by linguists as a near synonym for `phrase,' meaning a part of a sentence that functions syntactically as a single unit. The difference is that `constituent' is usually limited to phrases that are proper parts of larger expressions.

Now that we know something about constituent structure and grammatical categories, we are ready to know how the sentences of Daju language are constructed.

We will begin by building trees for simple sentences and then proceed to more complex structures. The trees that we will build here are more detailed, because the branches of the tree will have category labels identifying each constituent. In this section we will also introduce the syntactic rules that generate (a technical term for describe or specify) the different kinds of structures.

The following tree diagram provides labels for each of the constituents of the sentence "my child found this dog." These labels show that the entire sentence belongs to the syntactic category of S (because the S-node encompasses all the words). It also reveals that *my child* and *this dog* belong to the category NP, that is, they are noun phrases, and that *found this dog* belongs to the category VP or is a verb phrase, consisting of a verb and an NP. It also reveals the syntactic category of each of the words in the sentence.
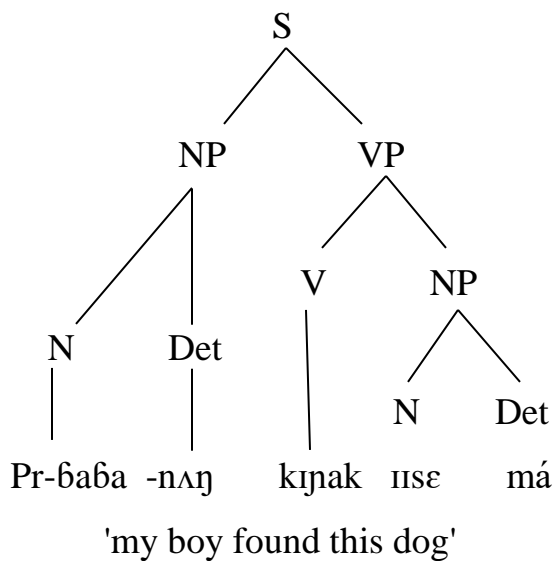
```
                    S
              _____|_____
             |             |
            NP             VP
           _|_            _|_
          |   |          |   |
          N   Det        V   NP
          |    |         |   _|_
          |    |         |  |   |
          |    |         |  N   Det
          |    |         |  |    |
      Pr-ɓaɓa -nʌŋ     kɪŋak ɪɪsɛ  má
           'my boy found this dog'
```

Figure (3.6) a phrase structure tree.

A tree diagram with syntactic category information is called a phrase structure tree or a constituent structure tree. This tree shows that a sentence is both a linear string of words and a hierarchical structure with phrases nested in phrases. Phrase structure trees (PS trees, for short) are explicit graphic representations of a

speaker's knowledge of the structure of the sentences of his language. PS trees represent three aspects of a speaker's syntactic knowledge:

1. The linear order of the words in the sentence

2. The identification of the syntactic categories of words and groups of words

3. The hierarchical structure of the syntactic categories (e.g., an S is composed of an NP followed by a VP, a VP is composed of a V that may be followed by an NP, and so on)

The larger syntactic categories, such as VP, consist of all the syntactic categories and words below that point, or node, in the tree. The VP in the PS tree above consists of syntactic category nodes V and NP and the words *found*, *this*, and *dog*. Because *this dog* can be traced up the tree to the node NP, this constituent is a noun phrase. Because *found* and *this dog* can be traced up to the node VP, this constituent is a verb phrase. The PS tree reflects the speaker's intuitions about the natural groupings of words in a sentence. In discussing trees, every higher node is said to dominate all the categories beneath it. S dominates every node. A node is said to immediately dominate the categories one level below it.

VP immediately dominates V and NP, the categories of which it is composed. Categories that are immediately dominated by the same node are sisters. V and NP are sisters in the phrase structure tree of "the child found a dog."

The information represented in a PS tree can also be represented by another formal device: phrase structure (PS) rules. PS rules capture the knowledge that speakers have about the possible structures of a language. Just as a speaker cannot have an infinite list of sentences in her head, so she cannot have an infinite set of PS trees in her head. Rather, a speaker's knowledge of the permissible and impermissible structures must exist as a finite set of rules that generate a tree for any sentence in the language. To express the structure given above, we need the following PS rules:

1. S → NP VP

2. NP → Ø N or NP → N Det

3. VP → V NP

Phrase structure rules specify the well-formed structures of a language precisely and concisely. They express the regularities of the language and make explicit a speaker's knowledge of the order of words and the grouping of words into syntactic categories. For example, in English an NP may contain a determiner followed by a noun. This is represented by rule 2.but in Daju there is no equivalence for the determiner that precedes the noun 'a', 'an' and 'the'. Thus the NP in Daju appears without determiner and a sign with zero or Ø. But there are demonstrative pronouns of Daju language that used as determiners such as: "this" "that", "these" and "those" the equivalence in Daju is mà which used for something singular and near where the máá used for something singular and further, another sà which indicates for the plural and near and sáá refers to something plural and further for examples:

(10) a. kuccɛ mà ' this cat)   b. kúccɛ́ máá 'that'

 a. kəndòkɛ́ sà ' these hens'   b. kúccíjàk sáá 'those cats'

The left of the arrow is the dominating category, in this case NP, and the categories that it immediately dominates appear on the right side, in this case Det and N. The right side of the arrow also shows the linear order of these components. Thus, one subtree for Daju and English NP look like this:
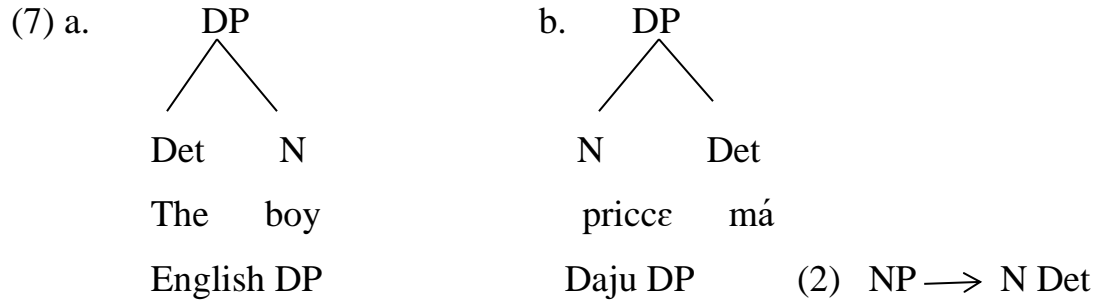
(7) a.　　DP　　　　　　　b.　　DP

　　　Det　　N　　　　　　N　　　Det
　　　The　　boy　　　　　priccɛ　　má
　　　English DP　　　　　Daju DP　　(2) NP $\longrightarrow$ N Det

Figure (3.7) English DP & Daju DP

　　The noun phrase 'the boy' in (7a) 'the' is a determiner (specifically an article), which will be a type of specifier for nouns. The head is the determiner (D) which projects into adeterminer phrase (DP). The word boy is the noun phrase (NP) which acts as the complement of the determiner phrase. More recently, it has been suggested that D is the head of the noun phrase. In (7b) it is opposed to English order that means the order of this DP in English the determiner precedes the noun and the head-initial while in Daju order the head-final that means the word order in Daju in the DP is difference and so did the determiner. Daju does not use the article of English (a, an & the); but it uses the demonstratives such as: this, that, these and those instead of articles.

　　Rule (1) says that a sentence (S) contains (immediately dominates) an NP and a VP in that order. Rule (3) says that a verb phrase consists of a verb (V) followed by an NP. These rules are general statements and do not refer to any specific VP, V, or NP. The subtrees represented by rules (1) and (3) are as follows:

　　　S　　　　　　　　　　VP

　　NP　　VP　　　　　V　　　NP

Figure (3.8) representation of rule (1); S → NP VP and rule (3); VP → V NP

A VP need not contain an NP object, however. It may include a verb alone, as in the following sentences:

(11) a. Wúrí kukuka

'The woman laughed.'

a. ɓàɓàŋɛ *ki-waŋ*

'The man danced.'

b. murtaanɛ ki-woŋ

 'The horse fell'
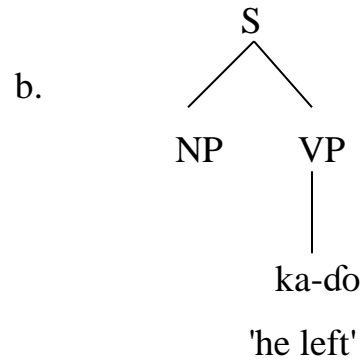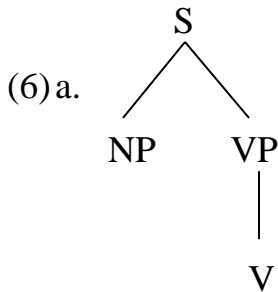
These sentences have the structure:

```
        S                                    S
(6) a. / \                          b.      / \
     NP   VP                             NP   VP
           |                                    |
           V                                  ka-ɗo
                                            'he left'
```

Figure (3.9) representation of rule, 4. VP → V.

Thus a tree must have a VP that immediately dominates V, as specified by rule (4), which is therefore added to the grammar:

4. VP → V

The following sentences contain prepositional phrases following the verb:

 (12) a. ɪɪsɛ *kawaŋ* tə ʃalɑccɛ

'The puppy played in the garden.'

   b. priccɛ wuri kukuka tə kəlkəlnɛ

     'A girl laughed at the monkey.'

   c. buge   ksee   semede   tə ærɛ́

      'the Boss ate soup at home'

The PS tree for such sentences is to permit structures of this type; we need two additional PS rules, as in (5) and (6).
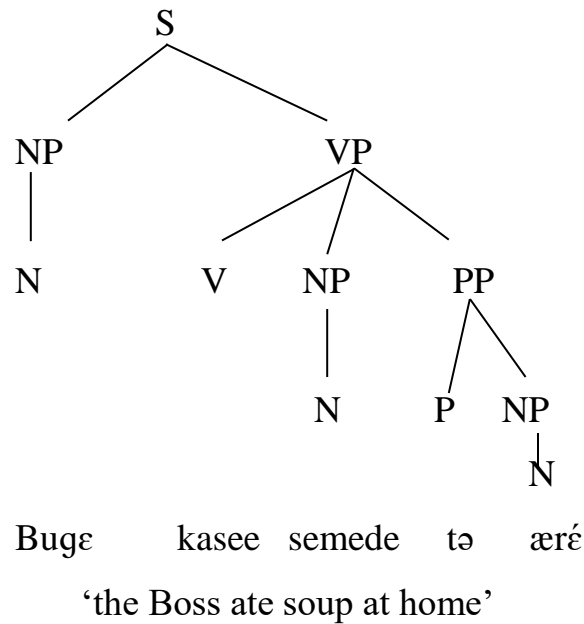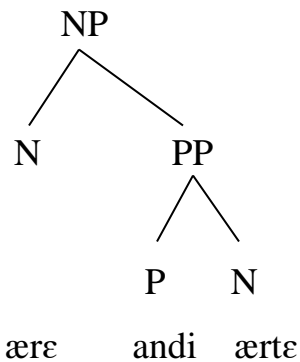
5. VP → V PP

6. PP → P NP

```
                       S
            ┌──────────┴────────┐
           NP                   VP
            │            ┌───────┼─────────┐
            N            V       NP        PP
                                 │        ┌┴───┐
                                 N        P    NP
                                               │
                                               N

         Bugɛ      kasee  semede    tə     ærɛ́
```

'the Boss ate soup at home'

Figure (3.10) the structure of functional of Daju phrases

In (10) 'bugɛ' represents of the NP while ' kasee ' represents the VP and the PP represents the complement of the VP, becaue it bounds to verb.

```
        NP
     ┌───┴────┐
     N        PP
            ┌─┴─┐
            P   N

    ærɛ    andi  ærtɛ
```

'the house *in* the forest'

Figure (3.11) the structure of functional of Daju NP phrases

3.4.1 Embedded Sentences (CP)

The third group of transformations mentioned by Noam Chomsky (1995:655) was those responsible for the generation of complex sentences, sentences which

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themselves contain sentences, or sentence-like structures as constituents: for example *(S₁ John said (S₂ that his mother expected him (S₃ to tell Adam (S₄ that…,* where the various embedded sentences are identified as S_1, S_2, and so forth. This process is clearly very productive. In Syntactic Structures the embedding operation is performed by a distinct set of transformations called generalized transformations that take as input two sentence structures, and yield as output a single structure with one sentence embedded into the other. The problem in general is obviously an important one, but the particular solution adopted in Syntactic Structures was extraordinarily complicated, led to considerable formal difficulties, and was soon abandoned so we will not pursue the matter here. It will be clear that the outline offered above says nothing about the generation of complex sentences.

  Another option open to the VP is to contain or *embed* a sentence. For example, the sentences (13):

  (13)   a. Mary koboss George

            'Mary helped George.'

         b. Cathey ki-wrrɛ *meŋ* Mary koboss George

           'Cathy knew that Mary helped George.'

         c. John aŋəsa *meŋ* Cathy kuwrrɛ meŋ Mary koboss George

           'John believed that Cathy knew that Mary helped George.'

    The word '*meŋ*' in (b&c) which, used in these examples, is called a complementizer (C). The role of that as a complementizer is to introduce a complement phrase (CP). For example, in the second sentence (Cathy knew . . .), we can identify one CP which contains that plus Mary helped George. We already know that Mary helped George is a sentence (S). So, we are now in a position to define a CP in the following way: "a complement phrase rewrites as a complementizer and a sentence", or CP → CS

We can also see from the same sentence that the complement phrase (CP) comes after a verb (V) knew. This means that we are using the CP as part of a verb phrase (VP), as in knew that Mary helped George. So, there must be another rule that says: "a verb phrase rewrites as a verb and complement phrase", or

7. VP → V CP.

If we now look at these two new rules in conjunction with an earlier rule, we can see how recursion is built into the grammar.

8. CP → C S

We begin with S on the left and, as we rewrite symbols, we eventually have S on the right, allowing us to go back to the beginning and go through the set of rules again (and again). This means that we can, in principle, use these rules to create an endless 'sentence' containing other 'sentences'. In practice, it allows us to draw the following tree diagram and provide a clear representation of the syntactic structure of this one fairly complex sentence.
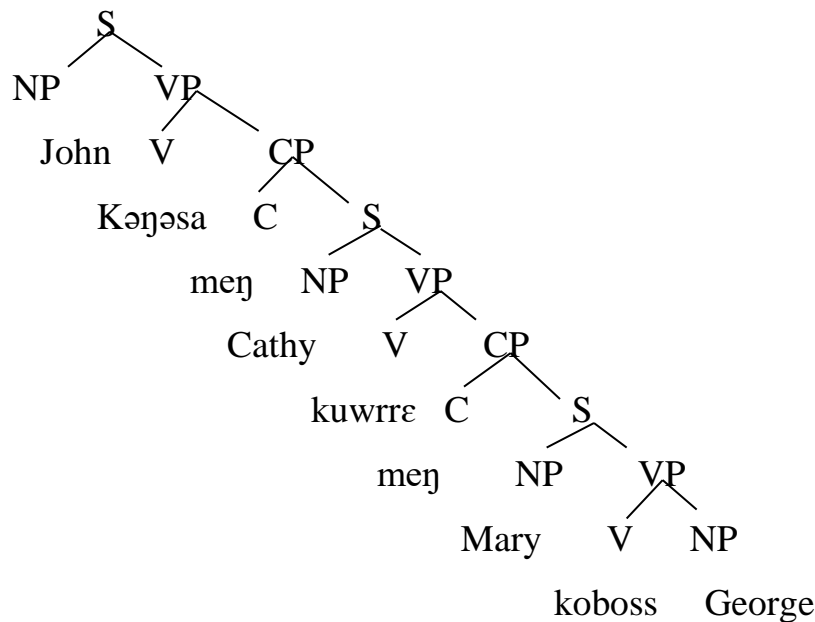
John kəŋəsa meŋ cathy kiwrrɛ meŋ Mary kəboss George

'John believed that Cathy knew that Mary helped George.'

Figure (3.12) diagram of embedded sentence CP

The simple phrase structure rules listed earlier have no recursive elements. Each time we start to create an S, we only create a single S (sentence structure). We actually need to be able to include sentence structures within other sentence structures. In traditional grammar, these 'sentence structures' were described as 'clauses'. We know, for example, that Mary helped George is a sentence. We can put this sentence inside another sentence beginning Cathy knew that [Mary helped George]. And, being recursive, we can put this sentence inside another sentence beginning John believed that [Cathy knew that [Mary helped George]].

In these sentences, two new proper nouns and two new verbs have been used. We have to expand our earlier set of lexical rules to include PN → {Cathy, John} and V → {believed, knew}. After verbs such as believe and know, as in Daju's examples, the word that introduces a 'complement phrase' we rewrite it again.

Mary koboss George

"Mary helped George".

Cathey kuwrrɛ meŋ Mary koboss George

Cathy knew that Mary helped George.

John aŋəsa meŋ cathy kuwrrɛ meŋ Mary koboss George

John believed that Cathy knew that Mary helped George.

CP stands for complementizer phrase. Rule (8) says that CP contains a complementizer such as *meŋ* followed by the embedded sentence. Here are the PS rules we have discussed so far. We can say Daju exhibits the rule (8. CP → C S), that examined through its sentence. A few other rules will be considered later.

1. S → NP VP

2. NP → ØN or NP →NDet

3. VP → V NP

4. VP → V

5. VP → V PP

6. PP → P NP

7. VP → V CP

8. CP → C S

3.5 Noun Phrases

ANoun Phrase, as its name suggests, is a phrasal constituent whose head is a noun. NPs in English, and most other languages, can function as subjects, primary or secondary objects, and objects of prepositions. In this chapter we will discuss various kinds of dependents (non-head constituents) which may appear in NPs in a large number of languages. The three most important classes of these are determiners, complements, and adjuncts (or modifiers). We will also look at possessors, which function as a kind of determiner in English, but as complements or adjuncts in some other languages. Finally we will discuss some structural features of NPs in English.

3.5.1 Complements.

In studying the structure of a clause we have distinguished complements, which are selected by the verb, from adjuncts, which are not. Nouns, too, can take complements and adjuncts of various categories. In this section we will discuss some of the criteria for distinguishing complements from adjuncts within an NP.

Daju is an SVO language, that is, in simple declarative sentences the order of the main components (constituents) is subject–verb–object(s) (or subject–verb–complement). A typical finite clause consists of a noun phrase functioning as the subject, a finite verb, followed by any number of dependents of the verb. In some theories of grammar the verb and its dependents are taken to be a single component called a verb phrase or the predicate of the clause; thus the clause can be said to consist of subject plus predicate.

Dependents include any number of complements (especially a noun phrase functioning as the object), and other modifiers of the verb. Noun phrase constituents which are personal pronouns or (in formal registers) the pronoun (minn) are marked for case, but otherwise it is word order alone that indicates which noun phrase is the subject and which the object.

The presence of complements depends on the pattern followed by the verb (for example, whether it is a transitive verb, i.e. one taking a direct object). A given verb may allow a number of possible patterns (for example, the verb *ká-dərì* 'cut' transitive, as in *Ali ká-dərì itté* 'Ali cut the tree', or intransitive, as in *Ali kà-dó* 'Ali left'). Some verbs can take two objects: an indirect object and a direct object. Direct object precedes an indirect one, as in *aag kà-dow sorne tə wurɛ* 'I gave the book to woman'; where the *wurɛ* is the indirect object and *sorne* the direct object.

3.5.2 Adjuncts.

As mentioned above, adjuncts to an NP are often referred to as modifiers. The most common type of modifier in English is the adjective, which will be discussed below. Besides adjectives, NPs can also contain PP modifiers, as illustrated in (1). The prepositional phrase *with big head* in these examples functions as an adjunct; it is not selected by the head noun, but may be freely added to any number of NPs, subject to semantic and pragmatic plausibility

(14)   a. ɓabaŋɛ [ani sa kəlaŋ]

'a man with big head'

b. pr-ɓaɓaŋɛ [ani sa kəlaŋ]

'a boy with big head'

c. uwrɛ [ani sa kəlaŋ]

'a girl with big head'

Adjuncts are constituents which are not required by the main verb, and can be removed without leaving behind something ungrammatical. Adjuncts are usually adverbs or adverbial phrases or clauses.

3.5.3 Adjectives and Adjective Phrases (AP)

In many languages there is one lexical category whose primary function is to modify nouns. This category is generally labeled adjective. Adjective modifiers in English normally occur before the head noun. Thus the basic order of constituents in the English NP is: Det-A-N-PP, as seen in the trees diagram below.

Repeated application of this rule would generate trees with multiple adjective positions, as desired. To examing English adjective NP → Det-Adj-NP, while the basic order of constituents in the Daju NP is: NP → N-Det-Adj.

```
            NP
           /  \
         Adj    NP
               /  \
             Adj    NP
                   /  \
                 Adj    NP
```
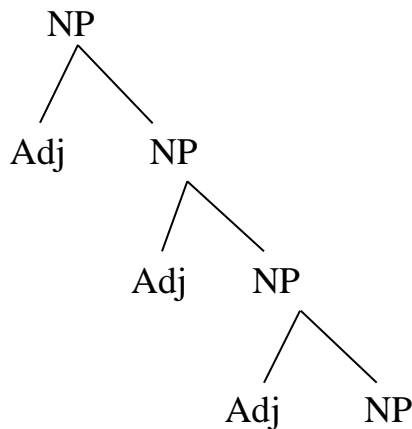
Figure (3.13) the formula of Adjective phrase Adj

But there is something wrong in this tree, which is made apparent when we expand the lowest NP.

```
                          NP
                        /     \
                   Adj          NP
                handsome      /     \
                           Det        N
                           The        boy
```
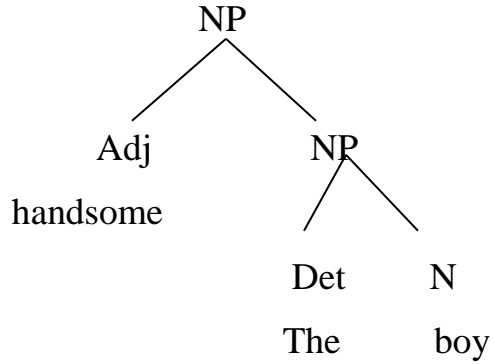
Figure (3.14) the order of (Adj + Det+ N) not possible in English

The adjective can appear before the determiner, and this is not a possible word order in English NPs. but it is possible in Daju word order left branch in spite of similarities of word order of both languages SVO.

The problem is that although determiners and adjectives are both modifiers of the noun, they have a different status. First, an NP will never have more than one determiner in it, while it may contain many adjectives. Also, an adjective directly modifies the noun, while a determiner modifies the whole adjective(s) + noun complex. The expression "the big dog" refers to some specific dog that is big, and not just some dog of any size. In general, modification occurs between sisters. If the adjective modifies the noun, then it is sister to the noun. If the determiner modifies the adjective + noun complex, then the determiner is sister to this complex. We can represent these two sisterhood relations by introducing an additional level of structure between NP and N. We refer to this level as N-bar (written as N').
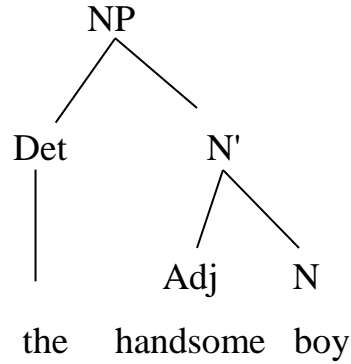
```
              NP
             /  \
           Det    N'
            |    /  \
                Adj   N
           the handsome boy
```

Figure (3.15) the order of (Det+Adj+N) possible in English.

This structure provides the desired sisterhood relations. The adjective *handsome* is sister to the noun *boy*, which it therefore modifies, and the determiner is sister to the N' *handsome boy.* This about the English language, but what about Daju language it is also impossible in Daju as in this phrase "murrtanɛ ma purr -this red horse" which indicates that the fomular of the figure (12) NP ⟶ Adj NP and NP ⟶ Det N it is impossible in Daju order. But figure (13) is possible in Daju order because the formular is NP ⟶ NP Adj and NP ⟶ N Det this rule emphasize rule 2.

```
              NP
             /  \
           Adj    NP
            |    /  \
                Det   N
          Purr  ma  murrtanɛ
```
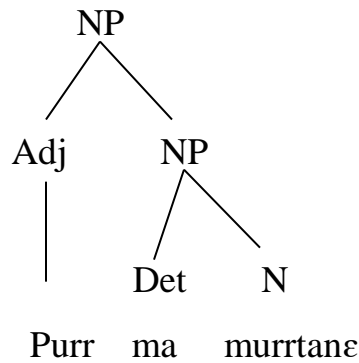
Figure (3.16) right hand branching

Thus structure in figure (12) is impossible in Daju language but it can be solved by changing the branch from right to left hand branching. This features found in English possessive phrase Anrian, A (2001:195).
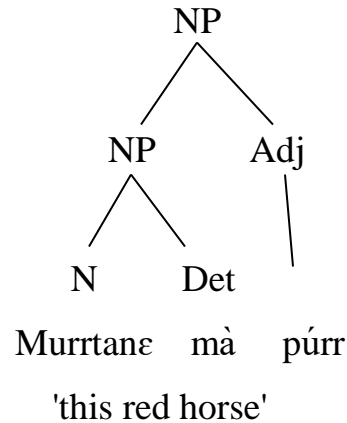
```
                          NP
                        /    \
                      NP      Adj
                     /  \       \
                    N    Det      
                Murrtanɛ   mà    púrr
```

'this red horse'

Figure (3.17) left hand branching

We must revise our NP rules to reflect this new structure, and add two rules for N'. Not all NPs have adjectives, of course. This is reflected in the second N' rule in which N' dominates only N.

NP → Det N' (revised version of NP → Det N)

N' → Adj N'

N' → N

Let us now see how these revised rules generate NPs with multiple (potentially infinitely many) adjectives. Thus far all the NPs we have looked at are common nouns with a simple definite or indefinite determiner (e.g., the cat, a boy), but NPs can consist of a simple pronoun (e.g., he, she, we, they) or a proper name (e.g., Robert, California, Prozac). To reflect determiner-less NP structures, we will need the rule

NP → N'

But that's not all. We have possessive noun phrases such as *Omdurman's garden*, *the girl's shoes*, and *the man with the telescope's hat.* In these structures the possessor

NP (e.g., *Omdurman's*, *the girl's*, etc.) functions as a determiner in that it further specifies its sister noun. The *'s* is the phonological realization of the abstract element *poss.* The structures are illustrated in each of the following trees.
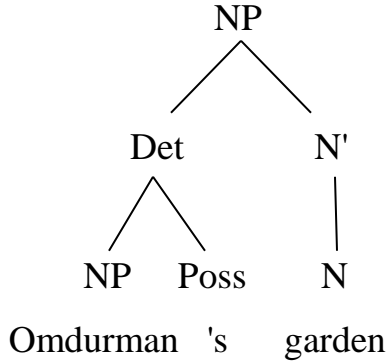
```
              NP
             /  \
          Det    N'
          / \    |
        NP  Poss  N
     Omdurman 's  garden
```

Figure (3.18) English possessive phrase left branching

(19) a.
```
              NP
             /  \
           N'    Det
           |    /  \
           Ø   NP   poss
               iis  -aŋ
              'my  dog'
```
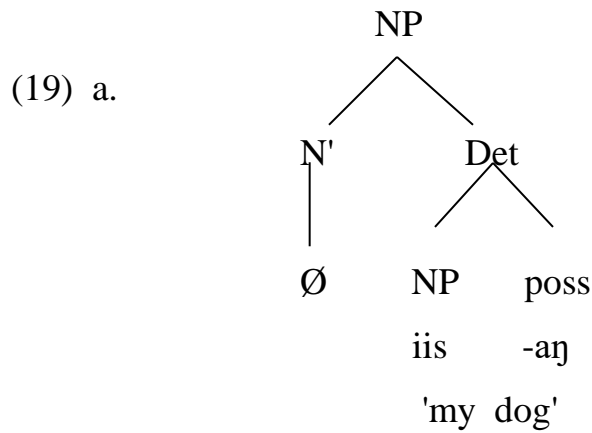
Figure (3.19) Daju possessive phrase right branching

It is not possible to speak of an individual's grandparent; instead one must speak of these relatives in collective sense. Thus the plural possessive pronouns are the only one used in Daju possession, this distinction of Daju from other languages that exhibit SVO. For example as in:
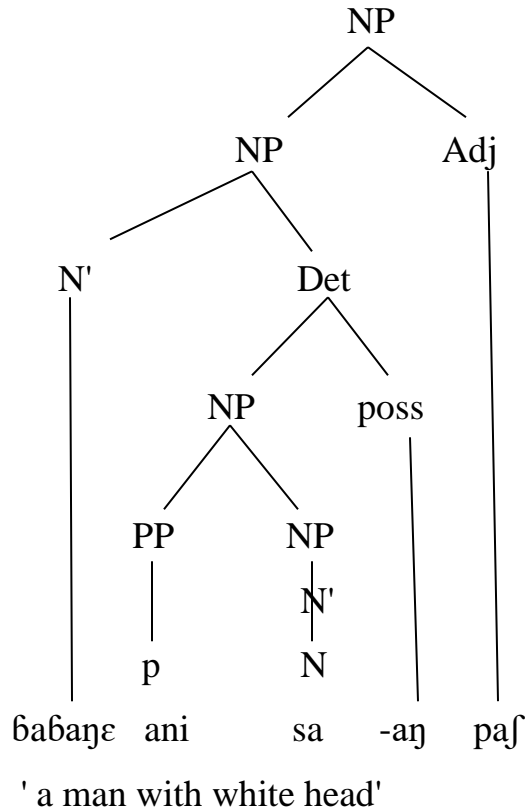
(15) ɓaɓanɛ ani saŋ paʃ

a man with white head

NP
├── NP
│   ├── N'
│   └── Det
│   ├── NP
│   │   ├── PP
│   │   │   └── p
│   │   └── NP
│   │   └── N'
│   │   └── N
│   └── poss
└── Adj

бабаŋɛ   ani   sa   -aŋ   paʃ

' a man with white head'

Figure (3.20) representation of possessive structure in Daju

To accommodate the possessive structure we need an additional rule:

Det → NP poss. This rule forms a recursive set with the NP → Det N' rule. Together these rules allow Daju speaker to have multiple possessives such as:

   (16) a. kunc-aŋ   'my dura'

     b. Ali ʃalacc-aŋ   *'Ali's farm'*

The embedding of categories within categories is common to all languages. Our brain capacity is finite, able to store only a finite number of categories and rules for their combination. Yet this finite system places an infinite set of sentences at our disposal.

3.6 Argument structure and subcategorization

    The information about the complement types selected by particular verbs and other lexical items is called C-selection or subcategorization, and is included in the

lexical entry of the item in our mental lexicon. (Here C stands for "categorial" and is not to be confused with the C that stands for "complementizer" Verbs also include in their lexical entry a specification of certain intrinsic semantic properties of their subjects and complements, just as they select for syntactic categories. This kind of selection is called S-selection (S for semantic). For example, the verb *kaɓah 'murder'* requires its subject and object to be human, while the verb ka-uri *'drink'* requires its subject to be animate and its object liquid. Verbs such as kə-tro *'like'*, *hate*, and so on select animate subjects. The following sentences violate S-selection and can only be used in a metaphorical sense. (We will use the symbol "!" to indicate a semantic anomaly.)

(17) a.!ŋənjɛ kaɓah ɓabanɛ
         !The rock murdered the man.

    b.!selecɛ   ka-uri pr-ɓonɛ

     !The fox drank the boy.

    c.!ittɛ́ kə-tro wurɛ

     !The tree liked the woman.

(18) a *love* < experiencer, stimulus >   S-selection

              | |

         subj   obj   C-selection

   b *give* < agent, theme, recipient >   S-selection

           | | |

        subj obj   obl   C-selection

   c *go* < agent >   S-selection

       |

      Subj   C-selection

We noted two fundamental ways in which predicates may differ from each other: (i) different predicates may require different numbers of arguments; and (ii)

predicates which require the same number of arguments may assign different semantic roles to those arguments. As we will see, these differences are crucial in determining the structure of the clauses in which each predicate occurs.

The argument structure of a predicate is a representation of the number and type of arguments it requires. The following examples show simple argument structure representations for the verbs in Daju *laŋ*, *kaw*, *kadrow*, and *kado*:

        (19) *a*-laŋ *<agent>*

           'sing'

           Ka-w <agent, patient>

           'hit'

           Ka-drow<experiencer, stimulus>

           ' love'

            kado<agent, theme, recipient>

           'give'

In any particular sentence in which these verbs are used, each of the arguments will be associated with a specific Grammatical Relation. This is illustrated in (20), where both the semantic role and the Grammatical Relation are marked for each argument.

    (20)a. John   *a-laŋ*

          S   V   (Grammatical Relations)

          agent   INT   (Semantic Role)

          'John sings.'

     b. Mary   *ka-w*   John

        S   V   O   (Grammatical Relations)

      A(gent)   TRN   P(atient)   (Semantic Role)

        'Mary hit John'.

c. John *ka-drow* Mary

    S   V   O   (Grammatical Relations)

experiencer TRN stimulus   (Semantic Role)

      'John loves Mary'.

d. John ka-ɗo eeja   tə iisana

  A(gent) DTRN theme   recipient   (Semantic Roles)

    S   O   OBL   (Grammatical Relations)

     ' John gave the meat to his dog'.

Information about the set of Grammatical Relations which a particular verb assigns to its arguments is often referred to as subcategorization, because it provides a way of dividing a single syntactic category (namely Verb) into several sub-categories; those that do not take an object such as in:(20a), those that require an object plus an oblique argument, example, in (20d) indicates that the verb *ka-ɗo 'give'* "subcategorizes" for a subject, a direct object, and an oblique argument 'PP' sometimes called indirect object. A verb's subcategorization is an important part of the information which must be found in its lexical entry.

We should point out that the representations in (20) are somewhat redundant, in that they contain information that is usually predictable. For example, a normal active transitive verb will almost always assign the SUBJ relation to its agent and the OBJ relation to its patient. Many linguists assume that a lexical entry should contain as little redundant or predictable information as possible. Now if the Grammatical Relation of each argument were fully predictable, so that it could be determined by applying a set of rules, then we would not need to list the Grammatical Relations in the verb's lexical entry. However, getting this approach to work properly turns out to be a fairly difficult task, and introduces more complexity than we can deal with here. For this reason we will simply assume that

all of the information contained in the representations in (20) is specified in the lexical entry for each verb in Daju Language.

3.7 Theta roles.

Instead of thinking of words as 'containers' of meaning, we can look at the 'roles' they fulfill within the situation described by a sentence. If the situation is a simple event, as in *prɪccɛ kaw koorɑnɛ'The* boy kicked the ball', then the verb describes an action (kaw). The noun phrases in the sentence describe the roles of entities, such as people and things, involved in the action. We can identify a small number of theta roles**,** also called 'semantic roles for these noun phrases it can be discussed in details in the following section.

3.7.1 Agent and Theme (patient)

In our example sentence, one role is taken by the noun phrase *prɪccɛ* as 'the entity that performs the action', technically known as the agent. Another role is taken by koorɑnɛ as 'the entity that is involved in or affected by the action', which is called the theme (or sometimes the 'patient'). The theme can also be an entity (koorɑnɛ) that is simply being described (i.e. not performing an action), as in:

(21) koorɑnɛ   pɪra

'The ball was red'.

Agents and themes are the most common semantic roles. Although agents are typically human (*prɪccɛ* "boy"), they can also be non-human entities that cause actions, as in noun phrases denoting a natural force (*shubaknɛ*), a machine (*arabeenɛ*), or a creature (*iisɛ* "dog"), all of which affect *koorɑnɛ* as theme.

(22) a. The boy kicked the ball.

   Agent   V-TRS   theme

   b. The wind blew the ball away.

      Agent   V-TRS   theme

   c. A car ran over the ball.

Agent   V-TRS   theme

  d. The dog caught the ball.

   Agent   V-TRS   theme

  The theme is typically non-human, but can be human (prɪccɛ), as in iisɛ kagas prɪccɛ 'The dog attacked the boy'. In fact, the same physical entity can appear in two different semantic roles in a sentence, as in *prɪccɛ kd́ero wanǝnǝ* 'The boy cut himself'. Here *prɪccɛ* is agent and wanǝne is theme.

3.7.2 Instrument and Experiencer

  If an agent uses another entity in order to perform an action, that other entity fills the role of instrument. In the sentences *'prɪccɛ kd́ero sɪttɛ ani kǝlaŋ kamponɛ'* *'The boy cut the rope with an old ax'* and the noun phrases *kǝlaŋ kamponɛ 'an old'* is being used in the semantic role of instrument.

  When a noun phrase is used to designate an entity as the person who has a feeling, perception or state, it fills the semantic role of experiencer. If we use the verb of emotions such as: *see, know or enjoy*, we're not really performing an action (hence NPs are not agents); so in this case NPs are in the role of experiencer. In the sentence: *The boy feels sad*, the experiencer (*The boy*) is the only semantic role. In the question, *Did you hear that noise*?, the experiencer is *you* and the theme is *that noise*.

3.7.3 Location, Source and Goal

  A number of other semantic roles designate where an entity is in the description of an event. If an entity is (*te tegtognɛ 'on the table', ani arɛ 'in the room'*); fills the role of location.Where the entity moves from is the source (from Chicago) and where it moves to is the goal (to New Orleans), as in *'We drove from Chicago to New Orleans'*. When *'we talk about transferring money from savings to checking'*, the source is *savings* and the goal is *checking*. All these semantic roles

are illustrated in the following examples that a single entity (e.g. Mary) can appear in several different semantic roles.

(23) a. Mary   kor   oŋorɪccɛ   ta trabɪzanɛ

    Experiencer   M-PAST-see   theme   location.

      'Mary   saw   a fly   on the table.'

   b. Mary   kəɓohki   menn sudanɛ

      agent   M-V-come   source

       'Mary came from Sudan'

   c. Mary   kəwza   iisɛ   ani massɛ

      Agent   M-V-fire   theme   instrument

      'Mary   fired   the dog   with agun.'

3.8 Transitive, Intransitive & Ditransitive

The concept of subcategorization is somewhat similar to the traditional classification of verbs as being either intransitive or transitive. The basic meaning of the term transitive is "taking an object." Thus, an intransitive verb (e.g. *kado 'left'*) does not take any object, a transitive verb (e.g. *kaw 'hit'*) requires one object, and a ditransitive verb requires two objects.

Clearly we need some way to ensure that the number of NPs and PPs generated in the tree structure is appropriate for the specific verb which is chosen. One approach might be to break up the category of verbs (V) into three subsets: intransitive verbs (INT), transitive verbs (TRAN), and ditransitive verbs (DITRN).We could then write separate rules expanding "S" in the correct way for each of these subcategories.

(24) a. John kəɗoho   S → NP V INT

      ˈ<u>John</u> left'.

    *a'. John aado

      'John likes'

Intransitive verb; a verb with a subject and no object such as:walked, sleep, left,

  b. John kaw iisɛ   S → NP V TRN NP

  ˁ John hit the dog.'

Transitive verb; a verb with a subject and an objecr such as: hit, buy, write, etc.

  c. John aaɗo sornɛ tə men-ana   S → NP V DITRN NP NP

  ˁJohn give a book to his feather'.

  *d'. John aaɗo prɪcce-ɓaɓaŋɛ

   ' John gives you boy

  e. #The idea is sleeping

  f. #Mary sings a white cake.

  h. #John drinks car.

Ditransitive verb; it is a subclass of transitive verbs, take two objects direct and indirect (24c). However, as we expand our inventory of verbs we quickly discover that three rules are not enough. Some verbs require not only an object NP (24b) but also a PP as oblique argumentas in (24c). Other verbs take a PP but no argument such as: *John read abook in the garden*; that means if we omit the pp the meaning not harm.

3.9 Well-formedness conditions.

Elements that are listed in the subcategorization of the verb (e.g. subjects, objects, etc.) are often referred to as the complements of the verb. The constraints that we need to formulate will basically ensure that each clause contains the right number and type of complements.

The "right number" means neither too few nor too many. A clause will have too few complements if it lacks one which is required by the verb's subcategorization set. In that case, we would say that the clause is not complete. A clause will have too many complements if it contains one which is not listed in the verb's

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subcategorization set. In that case, we would say that the clause is not coherent. To these two conditions we will add a third, namely that the Grammatical Relation (GRs) of each complement must be unique in its clause. In other words, there cannot be two subjects, two primary objects, etc. in a single clause.

As we will see in later chapters, many languages allow one clause to be embedded within another (i.e. one S may dominate another). For this reason, in order to determine whether a given clause contains the "right number" of complements, we need to be more precise about what it means for two elements to belong to the same clause. We will say that two elements are clause-mates if the smallest clause that contains either one of them contains the other as well. To restate this definition in terms of tree structure, we say that *X* and *Y* are clause-mates if the smallest S which dominates *X* also dominates *Y*, and vice versa. For example, *A* and *B* are clause-mates in (21), as *C* and *D*. But *A* and *C* are not clause-mates, and neither *A* and *D*, *B* and *C*, or *B* and *D*.
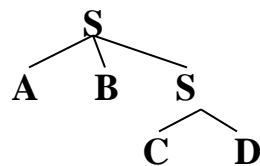
(21)

```
              S
           ／／＼
         A   B   S
                ／＼
               C   D
```

Figure (3.21) representation of semantic role and subcategorization

The diagram (3.21) says that, in order to be considered grammatical, each sentence must conform not only to the PS rules of the language but also to the well-formedness conditions. In other words, we define a grammatical (or well-formed) clause structure as being one in which: (a) every combination of mother and daughters is licensed by a PS rule; and (b) the well-formedness conditions are satisfied.

3.10 Phrase Structure trees.

The well-formedness conditions speak of assigning (GRs) to phrases which occur in particular Phrase Structure positions, specifically to clause-mates of V.

But there is no indication in our Phrase Structure diagrams of which (GRs) is assigned to which constituent, thus no way to be sure whether or not a particular tree structure satisfies the well-formedness conditions. It would be helpful to add this information to our PS trees in some way. The simplest approach is to add an annotation to the appropriate nodes in the tree structure, as in (3.22).
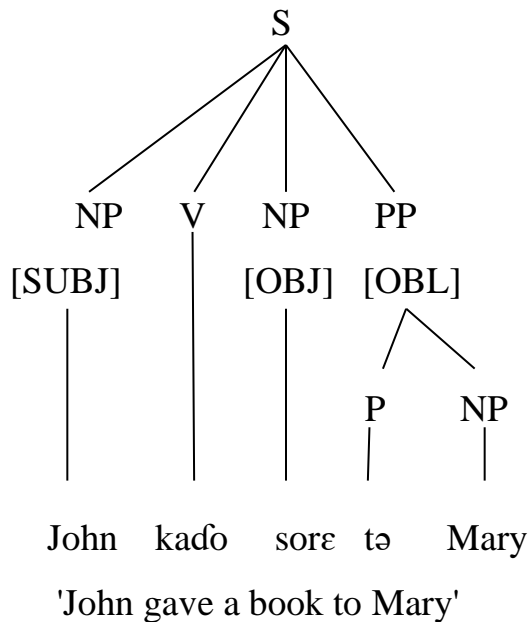
```
                          S
          ┌───────┬───────┼───────┐
         NP       V       NP      PP
       [SUBJ]           [OBJ]   [OBL]
                                 ┌───┐
                                 P   NP
                                 │   │
        John   kaɗo   sorɛ   tə    Mary
```

'John gave a book to Mary'

Figure (3.22) well-formedness conditions

To see whether the well-formedness conditions are satisfied, we need to compare the subcategorization properties of the verb with the Grammatical Relations (GRs) assigned to its clause-mates. Although we normally write only a single word for each terminal element in our tree diagrams, this is just a short-hand notation which actually represents the full lexical entry. The rest of the information contained in the lexical entry, including (at least for verbs) the argument structure, is also assumed to be available. By making some of this information explicit in the tree diagram, as in (23), we can immediately check for completeness and coherence.
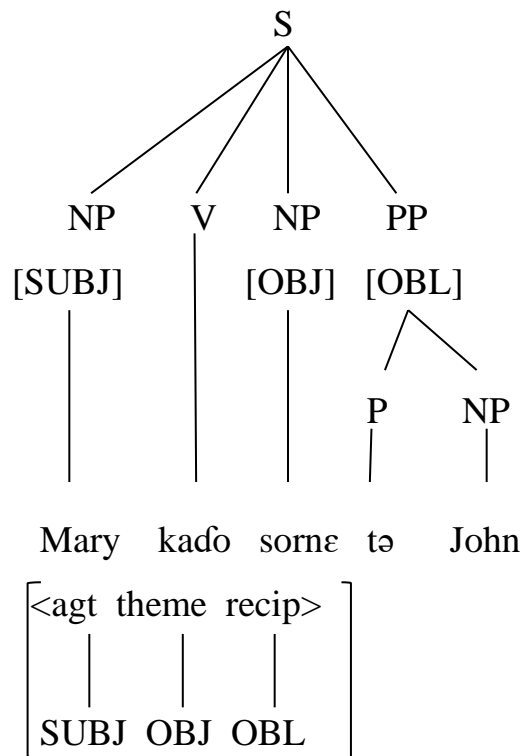
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```
                              S
                  ╱      │      ╲       ╲
               NP       V     NP       PP
             [SUBJ]          [OBJ]    [OBL]
                                      ╱   ╲
                                    P      NP
                                    │       │
               │      │       │     │       │
             Mary   kaɗo   sornɛ   tə     John
            ⎡<agt  theme  recip>           ⎤
            ⎢   │     │      │              ⎥
            ⎢   │     │      │              ⎥
            ⎣ SUBJ  OBJ   OBL              ⎦
```
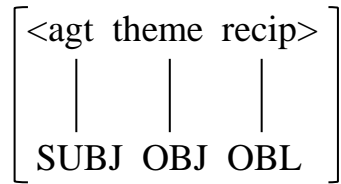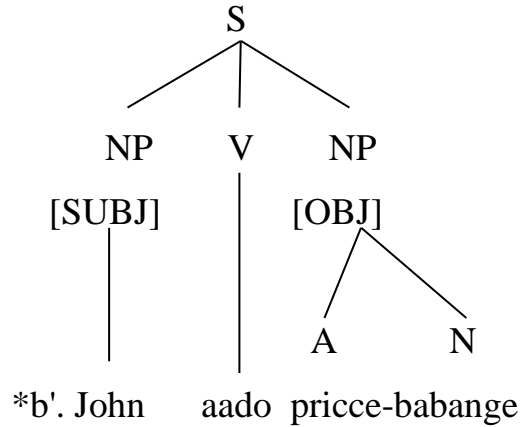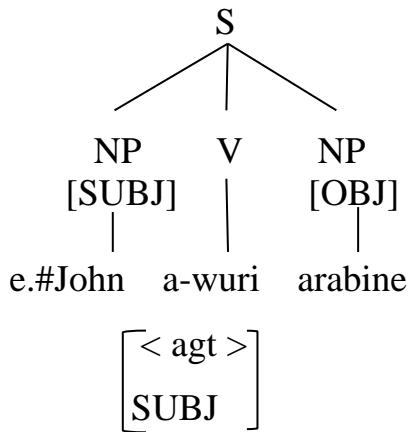
Figure (3.23) grammatical relations

This kind of annotated tree diagram allows us to see at once what is wrong with the ungrammatical examples in (24) above: (24a') and (24b') is incomplete, as demonstrated in (24a), while (24e) is incoherent, as demonstrated in (24b).

```
                    S
          ┌─────────┼─────────┐
        NP          V          NP
      [SUBJ]                  [OBJ]
        │           │        ┌───┴───┐
        │           │        A       N
    *b'. John     aado   pricce-babange

        ⎡ <agt  theme  recip> ⎤
        ⎢    │     │     │     ⎥
        ⎣  SUBJ  OBJ   OBL     ⎦

        * ' John gives young boy
```

Figure (3.24a) ungrammatical relations

```
                S
          ┌─────┼─────┐
        NP       V      NP
      [SUBJ]          [OBJ]
        │       │       │
    e.#John  a-wuri   arabine

            ⎡ < agt > ⎤
            ⎣  SUBJ   ⎦

          'John drinks car.'
```

 Figure (3.24b) ungrammatical relations

Daju word order is the most important signal for identifying the GR of a constituent: subjects normally come before the verb, direct objects immediately after the verb, etc. One way in which the grammar can specify the regular association of position with GR is by adding annotations to the PS rules themselves, as in (25). This rule will license tree structures like that shown in (3.23). The annotations can be thought of as extra units of information which must

be true of the constituent that occupies a given position in the tree. The node labels for these constituents now specify not only syntactic category but also the GR which must be assigned.

(25) S → NP   V   (NP) (PP)

[subj]   [obj] [obl]

In some other languages, word order is quite free and GRs are distinguished primarily by morphological features (case marking or agreement). In these languages, the rules which assign GRs to phrases must be stated in terms of the relevant morphological features. GRs form a crucial link in the association between individual phrases and semantic roles. They are associated with semantic roles in the argument structure of the verb, and with NPs or PPs in the Phrase Structure representation. (Both of these associations are illustrated in (23).) This linkage between a specific phrase and the semantic role which it bears is what allows the grammar to specify who did what in a particular situation. But the linkage is indirect, mediated by the GR.

3.11 Structural Ambiguity in Daju

So far we have seen that tree diagrams (phrase markers) can represent a certain variety of structura and relational concepts. Now we must turn to the question of whether tree diagrams can be used to explain other important linguistic phenomena. To address this issue, let us use these sentences as in:

(26) a. pr-ɓaɓaŋɛ kor ɓaɓaŋɛ ani telescopnɛ

       'The boy saw the man with the telescope'

      b. pr-ɓaɓaŋɛ ɓo-na la pr-wurɛ wondey togoor

      'the mother of the boy and the girl will arrive soon'

As mentioned earlier, certain kinds of ambiguous sentences have more than one phrase structure tree, each corresponding to a different meaning. In the sentence (26a) *the boy saw the man with the telescope* is structurally ambiguous. Its two

meanings correspond to the following two phrase structure trees. (For simplicity we omit Aux in these structures and we return to the non-X-bar notation.)]
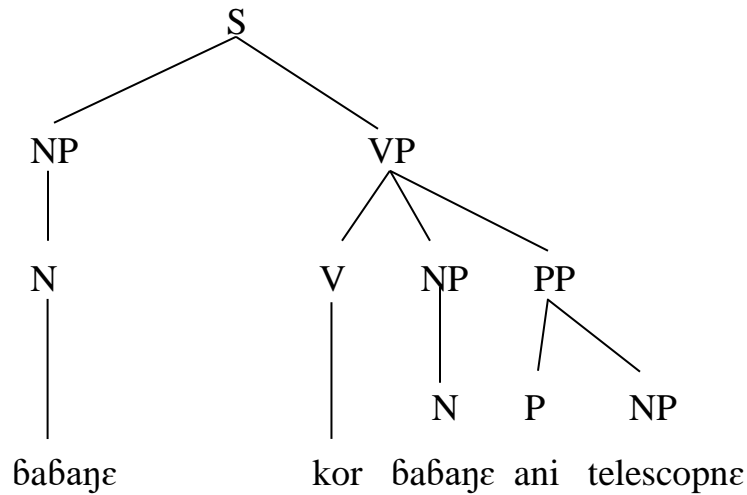
```
                              S
                 ┌────────────┴────────────┐
                NP                         VP
                 │               ┌─────────┼─────────┐
                 N               V        NP         PP
                 │               │         │        ┌─┴─┐
                 │               │         N        P   NP
                 │               │         │        │    │
              ɓaɓaŋɛ            kor    ɓaɓaŋɛ     ani  telescopnɛ
```

Figure (3.25-a) formular of ambiguity:

    a. S   NP VP

    b. NP   N

    c. VP   VP PP (PP directly under the VP no complement)

    d. PP   P NP

    One meaning of this sentence is "the boy used a telescope to see the man." The first phrase structure tree represents this meaning. The key element is the position of the PP directly under the VP. Notice that although the PP is under VP, it is not a complement because phrasal categories don't take complements (only heads do), and because it is not selected by the verb. The verb see selects an NP. In this sentence, the PP has an adverbial function and modifies the verb.
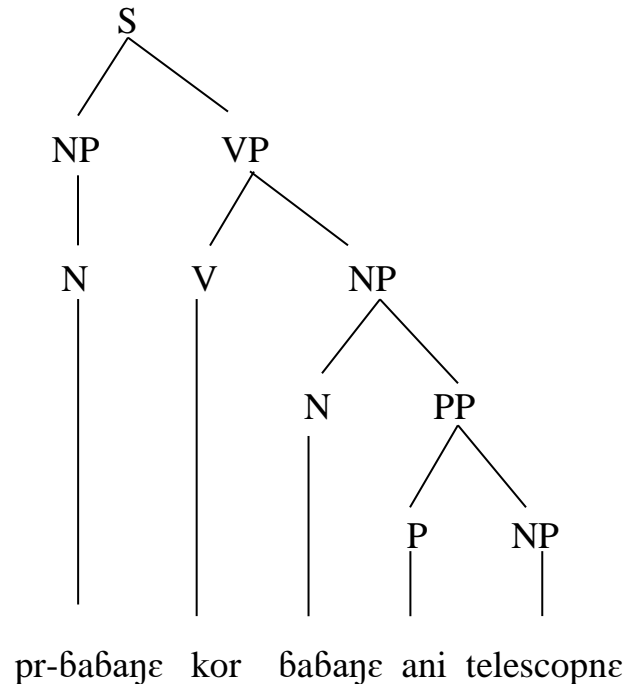
Figure (3.25b) formular of ambiguity

   a. S   NP VP

   b. NP   N

   c. VP   VP NP

   d. NP   NP PP   (PP under direct object NP)

   e. PP   P NP

In the figure (3.22-b) has another meaning, "the boy saw a man who had a telescope," the PP with the telescope occurs under the direct object NP, where it modifies the noun man. In this second meaning, the complement of the verb see is the entire NP *the man with the telescope*. The PP in the first structure is generated by the rule VP → VP PP In the second structure the PP is generated by the rule NP → NP PP Two interpretations are possible because the rules of syntax permit different structures for the same linear order of words.

In a theory of syntax using phrase markers to represent syntactic structure, the explanation of the phenomenon of structural ambiguity is straightforward: whereas an unambiguous sentence is associated with just one basic phrase marker, a

structurally ambiguous sentence is associated with more than one basic phrase marker. For example, sentence (11b) would be assigned two phrase markers, which we could formulate as trees (13) and (14)
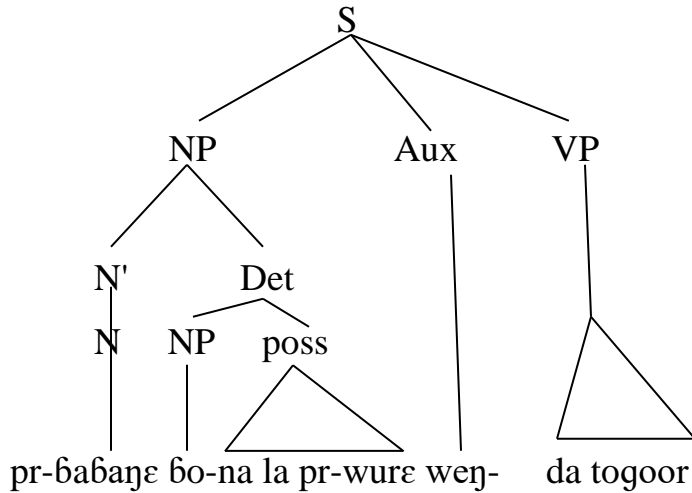
'the mother of the boy and the girl will arrive soon'

Figure (3.26-a) phrase marker

As before, we have simplified the structure in the diagrams by using triangles for certain phrases rather than indicating the internal structure of those phrases. But these trees suffice to show the difference in structure that we postulate for the two phrase markers associated with sentence (11b). In tree (3.23) the "head" noun of the subject, ʿɓonɛʾ mother, is modified by a possessive morpheme " –na" that has a conjoined noun phrase in it: pr-ɓaɓaŋɛ and pr-wurɛ.
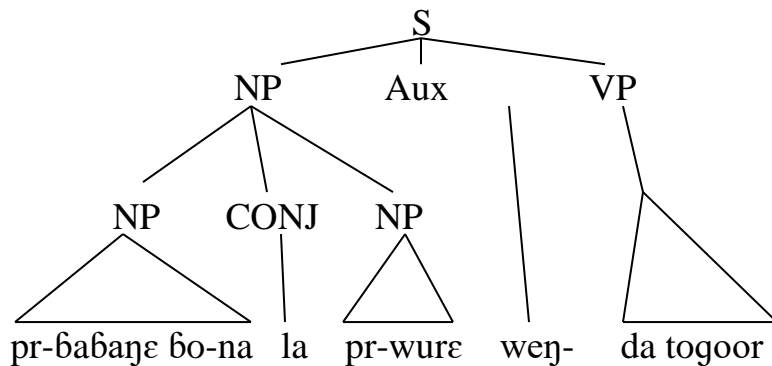

Figure (3.26-b) phrase marker

in tree (3.24) on the other hand, the subject noun phrase is itself a conjoined noun phrase: pr-ɓaɓaŋɛ ɓo-na followed by pr-wurɛ. We see, then, that a system of Daju representation using phrase markers allows us to account for structurally ambiguous sentences by assigning more than one phrase marker to each ambiguous sentence. In this way the Daju system of tree diagram can be used to describe instances of ambiguity that are not lexical.

As noted earlier, words like *will*, *has*, *is*, and *may* are auxiliary verbs, belonging to the category Aux, which also includes modals such as *might*, *could*, *would*, *can*, and several others. They occur in structures such as the following one.

(27) a.   S   B.   S

(subject) ⟶ NP   Aux   VP   Aux   V   NP   PP
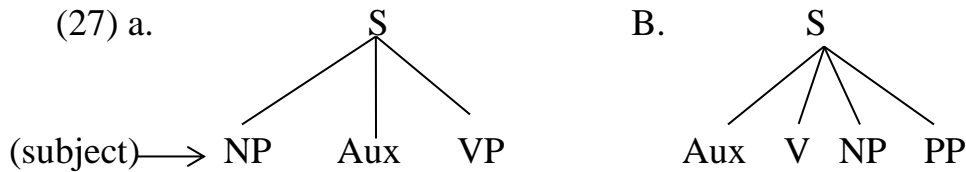
Figure (3.27) the auxiliary tree

 (27) a. ààgi á-ɗòhó   tɪk

           'Iam going today'

         b. agi a-ŋaɲ nowani ma odan

             'I'm buying this one here'

          b. Anne an-trja awagɛ

             They are cutting the trees

          c. Priccɛ ab-trja ettɛ

              'The boy is cutting the tree'

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S

NP   Aux   VP

              V   NP

                      N

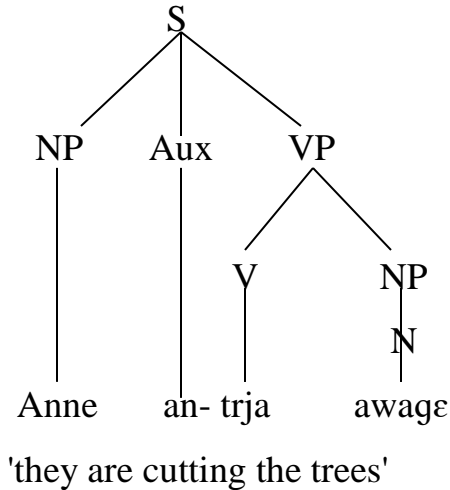Anne   an- trja   awagɛ

'they are cutting the trees'

Figure (3.28a) auxiliary 'an-' with main verb

Tree (21) says that auxiliaries in this order precede the main verb –trja and follows the subject of the sentence *anne*. This order may explains the head of the sentence that is Aux *an-* or may be emphasis of pronoun as seen at the initial of third person subject of pronoun *anne*. More examples:

S

NP   VP

Priccɛ   Aux   VP

             ab-   trja ettɛ

'The boy is cutting the tree'
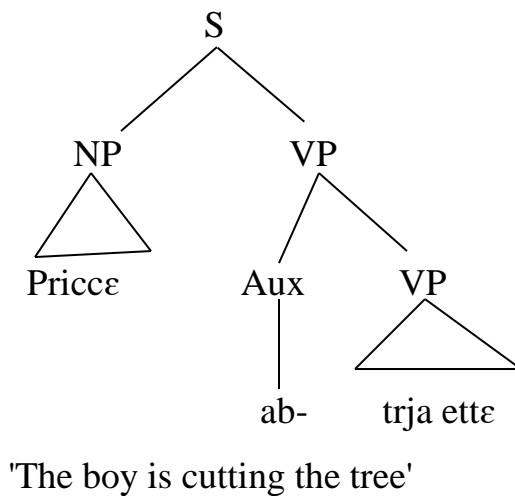
Figure (3.29b) auxiliary 'ab-' with main verb

In this case we adopt the convention of using a triangle under a node when the content of a category is not crucial to the point under discussion. Auxiliary verbs specify a time frame for the event (or state) described by the verb, whether it will take place in the future, already took place in the past, or is taking place now. A modal such as *may* contains "possibility" as part of its meaning, and says it is

possible that the event will occur at some future time. The category Aux is a natural category to head S. Just as the VP is about the situation described by the verb *trja ettɛ* is about "cutting", so a sentence is about a situation or state of affairs that occurs at some point in time. The parallel with other categories extends further. In the previous PS tree, VP is the complement to Aux. The selectional relationship between Aux and VP is demonstrated by the fact that particular auxiliaries go with particular kinds of VPs. For example in English, the auxiliary *be* takes a progressive (-ing) form of the verb,(28)

 a. The boy **is** danc**ing.**

while the auxiliary *have* selects a past participle (-en) form of the verb,

 b. The girl **has** eat**en.**

and the modals select the infinitival form of the verb (no affixes),

 c. The child **must sleep**

 d. The boy **may eat.**

To have a uniform notation, many linguists use the symbols T (= tense) and TP (= tense phrase) instead of Aux and S. Furthermore, just as the NP required the intermediate N-bar (N') category, the TP also has the intermediate T-bar (T') category, as in the phrase structure tree below.
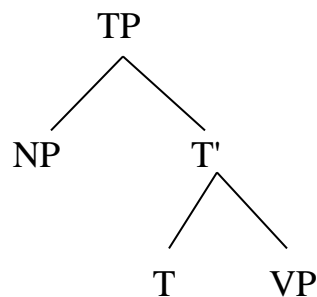

Figure (3.30) T-bar structure

Indeed, many linguists assume that all XPs, stand for any of these elements NP, PP, VP, TP, AdjP, or CP, have three levels of structure.

We will not use X-bar conventions in our description of syntax except on the few occasions where the notation provides an insight into the syntax of the language. For sentences we will generally use the more intuitive symbols S and Aux instead of TP/IP and T, but you should think of Aux and S as having the same relationship to each other as V and VP, N and NP, and so on. To achieve this more straightforward approach, we will also ignore the T' category until it is needed later on in the description of the syntax of the main verb *be*.

Without the use of TP, T', and T, we need an additional PS rule to characterize structures containing Aux:

VP → Aux VP

Like the other recursive VP rules, this rule will allow multiple Aux positions.
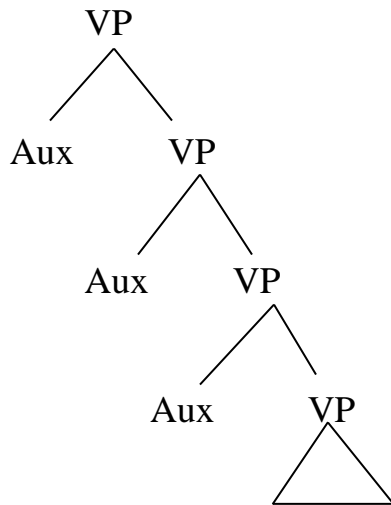
Figure (3.31) Aux position

The introduction of Aux into the system raises a question. Not all sentences of Daju seem to have auxiliaries. For example, the sentence Mohammed k-aw kooranɛ "*Mohammed kaw kooranɛ*" has no modal, *have* or *be*. There is, however, a time reference for this sentence, namely, the past tense on the verb *k-aw "kicked"*. In sentences without auxiliaries, the tense of the sentence is its head. Instead of having a word under the category Aux (or T), there is a tense specification, *present* or *past*, as in the following tree rewrite (17a):

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(subject) ⟶ NP   Aux   VP ⟶ (main verb)
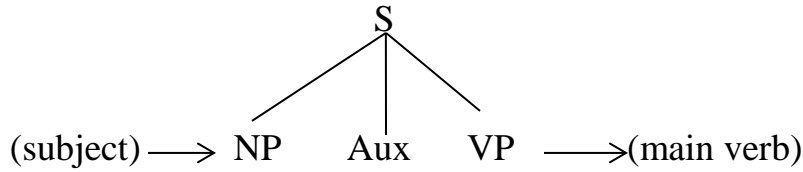
Figure (3.32) the tree of Auxiliary

NP   Aux   VP

Mohammed past   k-or koorɑnɛ

'Mohammed saw the football'
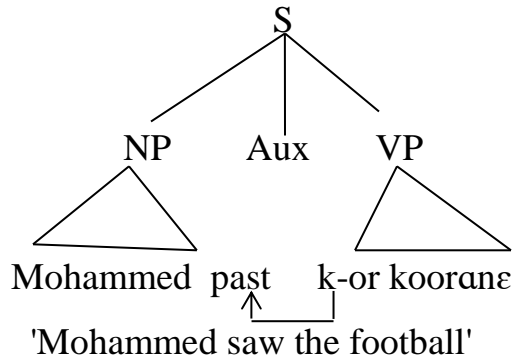
Figure (3.33) tense and Auxiliary

The inflection on the verb must match the tense in Aux. For example, if the tense of the sentence is *past*, then the verb must have an *k-* prefix; hence, in Daju, and many other languages, the head of S may contain only an abstract tense specification and no actual word, as just illustrated. The actual morpheme, in this case k- most inflectional morpheme, which depend on elements of syntax, are represented in this way. Another example is the tense-bearing word *do* that is inserted into negative sentences such as:

   (29) a. Ali ajə ab k-oon   negative sentence

        Ali did not go

and questions such as:

        b. dijara Ali kɪ-so ?   intorragative sentence

        what Ali did do?

 In these sentences *kɪ-* means "past tense."   In addition to specifying the time reference of the sentence, Aux specifies the agreement features of the subject. For example, if the subject is *anne*, Aux contains the features first-person and plural; if the subject is *ab*, Aux contains the features third-person and singular. So, another

function of the syntactic rules is to use Aux as a "matchmaker" between the subject and the verb. When the subject and the verb bear the same features, Aux makes a match; when they have incompatible features, Aux cannot make a match and the sentence is ungrammatical. This matchmaker function of syntactic rules is more obvious in languages such as Italian, which have many different agreement morphemes, as the Italian sentence for "I buy books." Rrobart K.(1993:108)

(30) a. Io Present   compro i libri

                                  first person

     b. *Io Present   compri i libri

                                  second person

The verb *compro*, "buy," in the first sentence bears the first-person singular morpheme, *-o*, which matches the agreement feature in Aux, which in turn matches the subject *Io*, "I." The sentence is therefore grammatical. In the second sentence, there is a mismatch between the first-person subject and the secondperson features in Aux (and on the verb), and so the sentence is ungrammatical

As mentioned earlier, certain kinds of ambiguous sentences have more than one phrase structure tree, each corresponding to a different meaning. The sentence *priccɛ kor ɓaɓaŋ ani telescopnɛ* is structurally ambiguous. Its two meanings correspond to the following two phrase structure trees. (For simplicity we omit Aux in these structures and we return to the non-X-bar notation.)

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(34) a.

```
                          S
               ┌──────────┴──────────┐
              NP                     VP
               │              ┌───────┴───────┐
               N             VP               PP
               │          ┌───┴───┐        ┌───┴───┐
               │          V       N        P       N
               │          │       │        │       │
            priccɛ       kor    бабаŋ     ani    telescopnɛ
```

Figure (3.34) the first phrase structure trees of ambiguous

.

```
                          S
               ┌──────────┴──────────┐
              NP                     VP
               │              ┌───────┴───────┐
               N             V               NP
               │             │           ┌────┴────┐
               │             │           N        PP
               │             │           │      ┌──┴──┐
               │             │           │      P     N
            priccɛ          kor        бабаŋ   ani  telescopnɛ
```
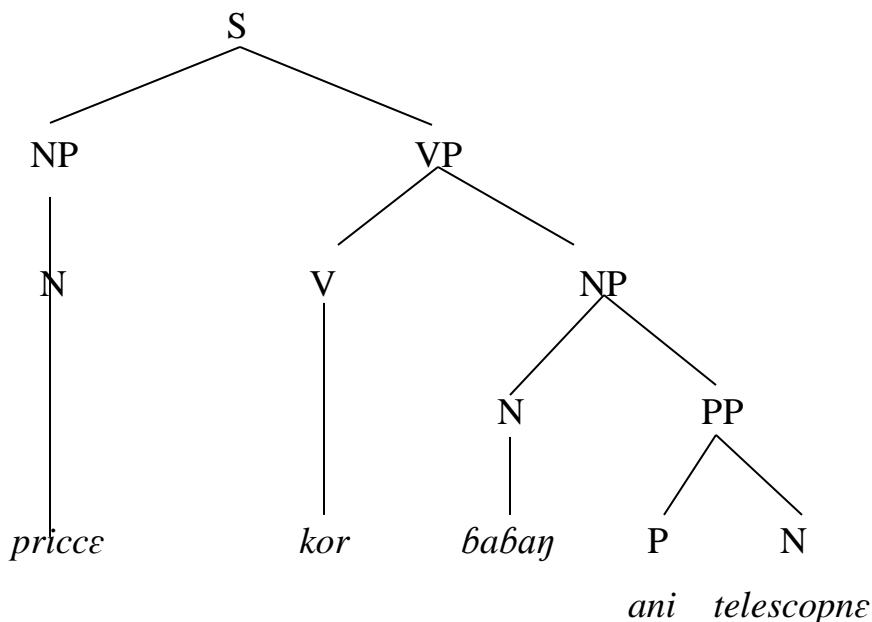
Figure (3.35) the second phrase structure tree of ambigous

One meaning of this sentence is "the boy used a telescope to see the man." The first phrase structure tree represents this meaning. The key element is the position of the PP directly under the VP. Notice that although the PP is under VP, it is not a complement because phrasal categories don't take complements (only heads do), and because it is not selected by the verb. The verb *see* selects an NP. In this sentence, the PP has an adverbial function and modifies the verb. In its other

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meaning, "the boy saw a man who had a telescope," the PP *with the telescope* occurs under the direct object NP, where it modifies the noun *man.* In this second meaning, the complement of the verb *see* is the entire NP *the man with the telescope.*

The PP in the first structure is generated by the rule

VP → VP PP

In the second structure the PP is generated by the rule

NP → NP PP

Two interpretations are possible because the rules of syntax permit different structures for the same linear order of words. Following is the set of PS rules that we have presented so far in the chapter. The rules have been renumbered.

1. S → NP VP

2. NP → Det N'

3. Det → NP poss

4. NP → N'

5. NP → NP PP

6. N' → Adj N'

7. N' → N

8. VP → V

9. VP → V NP

10. VP → V CP

11. VP → Aux VP

12. VP → VP PP

13. PP → P NP

14. CP → C S

This is not the complete set of PS rules for the language. Various structures in Daju cannot be generated with these rules, some of which we will talk about later. But even this mini phrase structure grammar generates an infinite set of possible sentences because the rules are recursive. These PS rules specify the word order for Daju (and other SVO languages, but not for Japanese, say, in which the object comes before the verb). Linear order aside, the hierarchical organization illustrated by these rules is largely true for all languages, as expressed by X-bar schema.

Many Daju sentence types are not accounted for by the phrase structure rules given so far, including (31):

(31) a. Ali ka-jahsi etté (etté)

'Ali shouted *loudly*'.

b. ab d́óhó tik

 s/he is going today

c. koŋo**,** abo ab- koŋ trtigani,.

Yesterday, he came home,

The sentence in (1) contains the adverb (Adv) *etté.* Adverbs are modifiers that can specify how an event happens or when it happens (*koŋo*, *kooni*, *tik*). As modifiers, adverbs are sisters to phrasal (XP) categories. In sentence (1) the adverb is a sister to VP, as illustrated in the following structure (we ignore Aux in this structure):
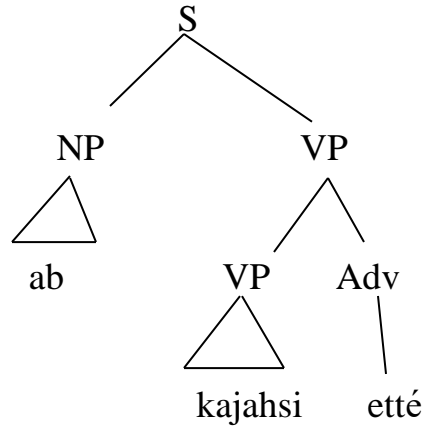
Figure (3.36) representation of Adv final position

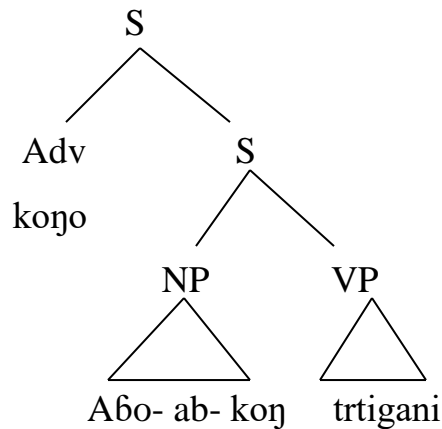Adverbs also occur as sisters to S (which, recall, is also a phrasal category, TP).

Figure (3.37) a tree of Adv in the initial position

     1. Adam kaɲaŋ sərɛ la Cassettenɛ koŋo.

     2. Adam kaɲaŋ sərɛ koŋo la Cassettenɛ.

At this point you should be able to write the three PS rules that will account for the position of these adverbs

        NP → NP CoordP, CoordP → Coord NP

        S → Adv S VP → Adv VP VP → VP Adv

In sentence (1) both the NP and AdvP modifying the verb, is grammatical and meaningful. Sentence (1) contains two coordinate structure *sərnɛ la Cassettenɛ "The book and the Cassette".* A coordinate structure results when two constituents

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of the same category (in this case, two NPs) are joined with a conjunction such as *la or "and"*. The coordinate NP has the following structure:

```
              NP
            /    \
        NP1      CoordP
                 /    \
             Coord     NP2
               |
              and
```
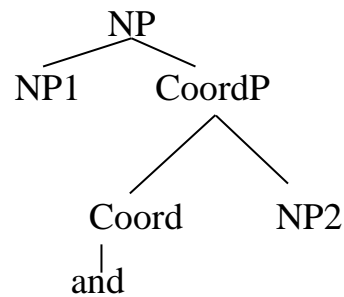
Figure (3.38) coordinate structure

Although this may seem counterintuitive, in a coordinate structure the second member of the coordination (NP2) forms a constituent with the conjunction *and*. We can show this by means of the "move as a unit" constituency test. In sentence (2) the words *la Cassettenε* move together to the end of the sentence, You can also construct trees for other kinds of coordinate structures, such as VP or PP coordination, which follow the same pattern by repeating the elements.

   a. Michael writes poetry and surfs. (VP *and* VP)

   b. Sam rode his bicycle to school and to the pool. (PP *and* PP)

3.12 Structure dependency (movement)

One of the first universals to be established within this tradition, namely the universal 'all languages are structure dependent', is based on Cook, (1988:2): 'the principle of structure-dependency, which asserts that knowledge of language relies on the structural relationships in the sentence rather than on the sequence of items'. It is obvious that English speakers' ability to form *yes/no* questions, for instance, does not depend merely on knowledge that a word appearing at a certain place in a declarative clause must be moved to the front to form the interrogative. To form the question, there are proses must be used "strikethrough" stand for the word that must be moved from this position to another "___"stand for the new word that moves; to form declarative such as:

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Will the letter ____arrive tomorrow?,

for example, one needs to move the third word of the declarative,

*the new sentence   The letter **will** arrive tomorrow,*

while to form the question,

***Is** this__ a dagger I see before me?*

one needs to move the second word of the declarative,

*This **is** a dagger I see before me.*

What is crucial in question formation is knowledge of syntactic categories: to be able to form English questions, it is necessary to recognize the class of auxiliary verbs, and to know that items of this class are put first in questions.

But even this knowledge is not sufficient to explain English speakers' ability to form questions involving relative clauses. In this sentence the numbers stand for the order of words, [ ] square brackets stand for identify the relative clause

The man$_3$___ [who is tall] is$_2$__ John$_1$__

O   Rel Aux Adj V$_2$ S

In the relative clauses thirst step identify for the relative clause and brackets by [ ], then English order is SVO or (main clause and subordinate clause) so in this case number the words according to its order and strikethrough the word, therefore move these words according to their ordering numbers with respect to SVO by putting the relative clause in its place in the right hand and the generative sentence look like this:

John$_1$ is$_2$ the man$_3$, [who is tall],

S   V   O   Rel Aux Adj

Similarly, informing passives, one needs to move a phrase, not just a word in a particular place in the sequence, and this again implies knowledge of structure, since without such knowledge the identification of phrases would be impossible.

Universals established as transformational-generative grammar evolved include Chomsky's (1981, 1982) figurationality parameters, for instance, the head parameter, which specifies the order of elements in a language. Any phrase will contain one element which is 'essential'. This element is called the head of the phrase Cook's (1988:7). For instance, in the verb phrase, *liked him very much, liked* is the head. The head in English appears on the left of the rest of the phrase, while in Japanese, for instance, it appears on the right. The innate, universal head parameter specifies that there are just these two possibilities, and that a language chooses one consistently, that is, 'a language has the heads on the same side in all its phrases' (ibid: 9). Parameters reduce the variation between languages to just a few possibilities.

The movement in the sentence is not just a matter of recognizing phrases and then of moving them around but of moving the right element in the right phrase. Structure dependency can therefore be put forward as a universal principle of language: whenever elements of the sentence are moved to form passives, questions, or whatever, such movement takes account of the structural relationships of the sentence rather than the linear order of the words; all known formal operations in the grammar of Daju, or of any other language are structure dependent. Passive sentences are formed from active sentences by moving various elements of the sentence around. The passive sentences:

(32) Adam was fired by the manager

This example is taken to be related to the active sentence. The manager fired Adam the object (Adam) in the active sentence moved to be the subject of passive. The active subject the manager moves after the verb in the passive and gains a preposition 'by' [thus becoming a prepositional phrase (PP)]. The verb changes from the active form 'fired' to the passive form 'was fired'.

(33) a. the manager₂,(Aux) fired (P) the Adam₁   active form

    b. Adam₁ was fired by the manager₂.   Passive form

One possibility is that it is the word that occurs in a particular place in the sentence says the fourth word.

(34) The manager fired Adam.
       1   2   3   4

But this is not for other passive sentence. For example, if the prepositional phrase 'on Tuesday' came in the sentence:

(35) On Tuesday the manager fired Adam.
      1   2   3   4   5   6

Moving the fourth word yield nonsense passive; Manager on Tuesday the was fired Adam. Daju passives do not depend on moving the fourth word, or the fifth word or indeed any other word in a particular numbered place in the sequence of the sentence.

3.13 Summary of chapter three

This chapter summarizes the certain strings of Daju words form a syntactic constituent because these strings:

a. can replace, or be replaced by, a single word;

b. occur in positions within the sentence which must be unique;

c. may occur in a number of different sentence positions, as illustrated in (p:63-66) can be "moved" (or re-ordered) as a unit;

d. can be replaced by a question word;

e. can function as the answer to a content question.

(36) a. ɑɑgɪ ɑ-ɗoho tɪk

        ' I'm going to day'

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(37)Prɪccɛ kɑkirkiri tamoʃɛ

'The child drew an elephant'

Example (1) shows that the words within a phrase or sentence are organized into sub-groups (or constituents), and that these groupings are often crucial in determining what the sentence means. Daju order the head-first in all parameters except at 'N-Det' head is final that means the word order in Daju in the DP is difference and so did the determiner such as; *ma, maa, sa* and *saa* instead of demonstratives.

CHAPTER FOUR

WORDORDER, CASE & AGREEMENT

4.0 Introduction

Every language must have someway of indicating the Grammatical Relations of clausal elements, and of distinguishing one relation from another. As we have seen, prepositions are often used to mark oblique arguments and adjuncts. For identifying the term relations (subjects and objects), this chapter will focus on the three basic elements: word order, case marking, and agreement. Any particular language will make use of one or more of these options.

4.1 Word Order.

To identifying the order of subject, object, and verb in Daju; involve identifying three different things: the order of subject and verb (SV), the order of object and verb (OV), and the order of subject and object (SO). The first two of these are often easier to identify, while the third one is often more difficult to identify; so Daju basic word order is SVO, i.e. the patterns of Daju's sentences are(1):

(1) a. ɑg   k-or   ɓaɓanɛ

     Isg-S   M-PST-see   3sg-man-O

     'I saw the man'

   b. Ali   kɑ-w   iis-ɛ

     S-3sg   M-AGR-3sg-V-hit   3sg-dog-O

   c. ɑp   k-or   ɑp

     3sg-(s)he/ it-S   PST-V-see   3sg-him-O

   d. wʊrɛ   k-or iise

      S   V   O

   'The woman saw the dog'

e. ààg-i   á-dò-hó   tɪk

   1sg-aux   AGR-go-PRE   Adv.   (S-AUX-V-Adv)

      'Iam going today'

f. iìg-i   ɗóhó   tɪk

   2sg-Aux.   θ-M pre.   Adv.   (S-AUX-V-Adv)

      'you are going today'

h. àp   ɗóhó   tɪk

   3sp   θ-M-PRE   today-Adv.   (S-AUX-V-Adv)

      '(s)he is going today'

   g. John-∅   wur-a   mæg-ɛ   (SVO)

     S-3sg   V-drink-s   O-water

      'John drinks water'

   k. John-∅   sij-a   eejɛ   ani   təməh-ɛ   (SV-DO-IDO)

    NOM-3sg   V-aAGR   meat-ACC   P-with-hone-DAT

        'John eats meat with hone'

  i. John   ki-si   eejɛ   (SVO)

     S   M-V- PAT   O

  l. kəndanɛ   maa   (DEM-Adj)

   N-hen   Det/DEM/Adj-that

      'that hen'

j. ɑg   k-or   iisɛ   maa   kəlæɲ   (SV-DEM-Adj)

   1sg-S   V   C   Adj

      'I saw that big dog'

   m. iisɛ   kəlæɲ   (N-Adj)

   N-dog   Adj-big

     'big dog '

n. ap   kʌnd-uk-eena   kodoss   (N-N-POSS-NUM)

   3sg   hen-3pl-POSS   NUB

     'S/he has three hens'

Examples in (1) refer to Daju's sentences pattern in different ways in (1a) we can observe subject first, second and third pronoun; also common and propor nouns; all these elements agree the verb and structured of SVO and others as subject predicate as in (1e,f,h), also Aux. precedes main verb and Adv comes final as same as Adjective in(1j&m) and so do NUM; while possessive precedes numbers and attaches directly to their nouns.

Dryer (1988, 1992), thought that OV languages tend to be AdjN and that VO languages tend to be NAdj, also Greenberg (1963) suggested that verb-initial languages tend to be NAdj, this agreement is applicable in Daju language.

One of the primary ways in which languages differ from one another is in the order of constituents, or, as it is most commonly termed, their word order. When people refer to the word order of a language, they often are referring specifically to the order of subject, object, and verb with respect to each other, but word order refers more generally to the order of any set of elements, either at the clause level or within phrases, such as the order of elements within a noun phrase. When examining the word order of a language, there are three kinds of theories most be taking in mind such as: Greenbergain (1963), method Universal Grammar by using subject(S), verb (V) and object (O) (1963), Dixon (1972), distinguishes between clauses that involve three grammatical relations: subject of intransitive verb (S), subject of transitive verb (agent, henceforth A), and object of transitive verb (O), and Chomskyan (1957), formal discussed in chapter three and substantive universals discussed in chapter five.

4.1.1 Identifies Part of Speech.

The categories, for which nouns may be specified, either morphologically or syntactically, are case, number, class or gender, and definiteness. Case marking indicates grammatical functions (such as subject, direct object, and indirect object; as in the following examples from Daju (1) (in which case is marked morphologically, by suffixation) and Japanese (2) (in which case is marked syntactically, by postpositions).

4.1.2 The Nouns.

(2) wur-ɛ   ka-ɗo   sərn-ɛ   tə   urɛ-pri-ccɛ

   woman-ERG   M-PST-give   book-DO   to   girl-IDO

'The woman gave a book to the girl'

In this sentence there are three nouns *wurɛ, sərɛ*, and *priccɛ*; all marked with respect to the relationship each holds to the verb of the sentence. The noun *wurɛ* has an overt suffix (-ɛ); it is in the ergative case, which marks it as the subject of this sentence. The dative case marker; which indicates that the noun *priccɛ* is the indirect object of the sentence. Likewise, the noun *sərnɛ* is marked with the accusative case which indicates that it is the direct objet of the sentence. The traditional scope of case is, therefore, based on the morphological manifestations with which nouns indicate their relationship to their heads in the structure and Japanese (3) in which case is marked syntactically, by postpositions.

(3) Onna ga shojo ni ringo o ataeta   from Timothy S. (2005: 8)

      Woman-S girl DAT apple O gave

    'The woman gave an apple to the girl'

Number marking distinguishes singular from plural, and, more rarely, dual, as in both Daju and English *house/houses*; Daju *ærɛ/ærtgɛ* Eskimo *iglu* 'house' / *iglut* 'houses' / *igluk* 'two houses'; or Tagalog *bahay* 'house' / *mga bahay*

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'houses'. Class or gender marking partitions the set of nouns into subsets, each of which has its own distinctive marking.

The syntactic distribution of the two noun forms clearly depends on and at the same time expresses the type of syntactic relationship of the noun to the following word, if any. The simple form occurs when the second cannot be functionally analyzed as a modifier of the noun, which therefore does not have the role of a head. Inversely, the presence of a term which is subordinate to the head noun requires this noun to appear in the modified form. Let us illustrate these relationships (and roles) by contrasting two morphosyntactic (and semantic) behaviors of teɲɛ 'cow' in the presence of a following adjective kəlæŋ 'big':

(4) a. (ab) kaŋaŋ   teɲɛ kəlæŋ

   (he)-S   M-V-buy N   Adj   (S+V+N+Adj)

    'He bought a big cow'.

    [he bought [cow big]]

  b. ɑg-ō   áʃkkɛ   kódòss

   1sg-Aux(poss)   NPL-goats   NUM-three

    'I have three goats'

    [I have [goats] [three]]

In (4a), the adjective modifies the noun, which appears in the modified form. The sequence teɲɛ kəlæŋ represents a complex nominal phrase, which constitutes, as a whole, the object of the verbal predicate 'he bought'.

In (4b), however, there may be a restriction on the validity of the above distributional principle, namely, the behavior of the noun followed by numeral and seemingly modified by a cardinal numeral. One can in fact contrast the direct sequence in (5a) with the relative construction in (5b):

(5) a. ab   kadirr   wuccɛ   pidah

   3psg   V-transt   N-PL   NUM

' He broke two sticks'.

b. (ab)   kadirr   wuccɛ   pidah

   3sg-S-he   V-cut   3pl-stick-REL two-DEF

   ' He cut the two sticks' (the sticks which are two).

The main semantic distinction between these two sentences seems to lie in the necessarily definite character of the object noun phrase in (5b). Yet the construction in (5a) can also be understood in a similar way to those in (4b) above, and be paraphrased as 'he broke sticks, and he broke two items of them and these sticks were two'. Presumably, the cardinal numeral in (5a) is again not directly dependent on the noun, but syntactically subordinate to the verbal predicate, a situation is common in African languages, which brings out the specific nature of the cardinal numeral "modifier". To sum up, Daju Lagawa shows a strict correlation between the choice of a simple vs. modified noun form and the absence vs. presence of a (following) directly subordinate modifier of the head noun.

A parallel example involving the noun *kuccɛ* 'cat' and the adjective *ɟill* 'Black' may shed some light on the specific structure and semantics of the preceding case:

(6) a. ab   k-or   kuccɛ   ɟill

    3sg-S   M-PST-see   3sg-O-cat   Adj-black.

    [she saw [cat black]]

In the (6a) means that the process of "seen" is applied to *a cat black*, and is fully acceptable and correct in Daju but in English does not correct because adjective precedes noun not opposite. A contrast between two constructions (4), (6) of the adjective may be observed in Daju. Note that (4a) can also be understood as a case of syntactic collision between two clauses sharing a same argument (phrase):

    [[he bought [a cow] is big]]

   'he bought a cow and the cow was big'.

4.2 The Pronouns System in Daju Language.

All languages appear to have some kind of pronoun agreement. We noted in the preceding chapter that person, number, and gender are the most commonly marked categories in pronoun systems, as in verb agreement systems. Of these, person and number appear to be marked in all languages. Joseph Greenberg (1963), in his pioneering study of language universals, stated:

"All languages have pronominal categories involving at least three persons and two numbers." (Universal 42) So all languages distinguish first, second, and third person pronouns, although in some languages third person pronouns have the same form as articles or demonstratives. Beyond these three basic categories, the most common further distinction is a contrast in the first person plural between inclusive and exclusive forms. A first person inclusive pronoun (e.g. Malay *kita*) refers to a group which includes both the speaker and the hearer ('you, me, and [perhaps] those others'). A first person exclusive pronoun (e.g. Malay *kami*) refers to a group which includes the speaker but excludes the hearer ('me and those others but not you').

In the years since Greenberg published his study a few languages have been found in which pronouns are not specified for number. Most languages, however, do make a distinction between singular and plural pronouns, at least in the first person (*I* vs. *we*). Modern English has lost its number distinction in the second person, and many languages have no number distinction in the third person. In addition to the basic contrast between singular and plural, many languages have a dual category for groups containing exactly two individuals. Dual number is found most commonly in first person forms. Any language that has a distinct dual form in the third person will almost certainly have distinct dual forms for the first and/or second persons as well.

4.2.1 Pronouns

Pronouns are a special kind of noun phrase. Their syntactic distribution in many languages is similar to that of proper names. But semantically there is an important difference between pronouns and names. A proper name refers to a specific individual.

First, we present the analysis of the morphology of the subject, object, possessive and relative pronouns of the Daju language. One of the more interesting aspects of the system is the absence of gender. Though gender in the pronoun system is fairly rare in the Eastern Sudanic languages, Tucker and Bryan (1966:14) do not specify which particular languages have gender this provides that Daju has no gender.

4.2.2 Subject pronouns.

Table (4.1) gives the full subject pronoun paradigm.

	Singular	meaning	Plural	meaning
1st Person	*ag*	I	*aʃko/excl*	we
	___	___	*Onoka/incl*	we
2nd Person	*ig*	you	*ongo*	you
3rd Person	*ap*	s/he	*anne*	they

Table(4.1): Subject Pronouns.

In the third person singular of Daju there is no gender distinction: between masculine, and feminine, also no neuter distinction found in third person singular pronouns; thus use one form even in subject and object marker do not change *ap*.

The subject pronouns follow Greenberg's generalizations (1966:109-111): The first person singular pronoun contains ɑ while the second person singular contains *i*. Greenberg notes that one of the common features in Eastern Sudanic languages

is the composition of their pronouns, especially the subject pronouns. Most often the first person singular and plural pronouns contain ɑ- while the second person singular and plural contain *i-*. The third person singular and plural also contain ɑ-so, these illustration provides Greenberg's observation. The presence of /n/ in the third person plural as well as the presence of /k/ and /g/ alternative in the plural is widespread in all Daju languages (Tucker and Bryan 1966:236). The /n/ and /k/ elements extend to possessive pronouns, interrogatives and determiner particles and are part of what Tucker and Bryan (1966:236) refer to as a "substratum" known as the *n/k* opposition found in a variety of Eastern Sudanic languages.

4.2.3 Subject pronouns:

Examples illustrate the role of subject pronouns in Daju sentences: example taken from Abbakar, I. (2000:100)

(7)　a. ág　　kan-òr　　púksέ　　　　　b. íg kásì　　éíyá

　　　　1sg-S M-PST-see O-rabbit　　　　2sg M-PST-eat O-meat

　　　　' I saw the rabbit'　　　　　　　　' you ate meat'

　　　c. ɑp　　k-or　　　　ɑp　　　　　d. ongo　ne-kan-or John

　　　　s/he-S M-PST-see　O-3sg　　　　　2pPL-S M-PSt-see O

　　　　' s/he saw him '　　　　　　　　　' you saw John '

　　e. *aʃko/excl* ne-k-or-k　　ap　　**f**. *k-Onoka/incl* ne-k-or-k　ap

　　　1pPL-S　　M-PST-see 2sg-O　M̲-1pPL-S　　M-PST-M 2sg-O

　　　' we saw him '　　　　　　　　' we saw him '

  In (7) we observe that subject pronoun appears in order word SVO, hence first person singular agrees with its verb in (7a) and so (7-b,c,d) but there is something vary in (7e-f) which distinctive the Daju language from others that is the exclusive and inclusive. In (7e) agreement of verb requires prefix and suffix in the same time; while (7f) inclusive pronoun requires subject-marker "*k-onoka*" to agree the verb.

	Singular	meaning	Plural	meaning
1st Person	ag	I	Iʃko/excl	us
	___	___	Onoka/incl	us
2nd Person	ig	you	ig	you
3rd Person	ap	s/he	an	they

Table (4.2): Object Pronouns.

The object pronouns, shown in Table (4.2), differ from subject pronouns only in the first and third person plural forms. These pronouns are used as direct objects and objects of prepositions; that appears in a set of indirect object pronouns that begin with the phoneme /t/. This *t* element may be historically related to the preposition *tə* 'to' which is commonly used in the language. The object pronouns presented in table (4.2) always require a preposition before the pronoun when they are not used as direct objects.

Example (8) shows the use of the indirect object and direct object pronouns:

(8) a. ab   kəŋad   tə ŋga   b. Adam k-aw   ongo

        3sg speak-NPR Pre 1s.IDO   S M-PST-hit   DO

        'He spoke to me.'   ' Adam hit you '

    c. ig   k-bak má min iʃko   d. ɓaɓaŋɜ kaw   onoka

    1sg-S M-PST-take Pre excl-1pPL-IDO   S   m-PST-hit incl-DO

    ' you took this from us'   ' the man hit us'

4.2.4 Possessive pronominal suffixes

Daju has possessive suffixes rather than possessive pronouns itselves; they used the reflexive pronouns as possessives such as table (4.3) below we observed that possessive add to the end of nouns to form a genitive, so if a nominal end in a vowel sound it must be deleted to replace the possession suffix.

Pronoun	Possession	Example	
1ps	-ang	kunc-ang	my dura
2ps	-inka	kunc-inka	your dura
3ps	-eena	kunc-eena	his/her dura
1ppl. (excl)	-ishko	kunc-ishko	our dura
1ppl. (incl.)	-onoka	kunc-onoka	our dura
2ppl.	-inko	Kunc-inko	your dura
3ppl.	-an	Kunc-an	their dura

Table (4.3):**possession pronouns.**

Table (4.3) describes the possession pronouns of Daju. The possessive always attaches to the noun in possession case, and the order is noun +possessive marker (N/POSS) but, the noun follows the determiner when compound with possessive as in (4.3).

(9) a. ma   iis-ana   b. ma   murta-nʌŋ

   Dem N-dog-G   Dem N-horse-G

4.2.5 Relative pronouns

The morphemes *mey* and *meŋ* function respectively as the singular and plural forms of the relative pronouns or complementizers in the Daju language. Also *mey and meŋ* use as prefix to indicate who do the action or a genitive of that verb as shown in examples: (10) and (11)

(10) a. mey kukukkɛ   i.e. the one who laughs Abbakar (2000:93)

b.mey waŋakke   i.e. the one who plays

c. mey laŋakkɛ ' singer '

d. meŋ laŋakkɛ ' singers '

(11) a. ɑg kan-or   ɓaɓaŋɛ mey kəɓo

       1s see-NPR man-Cs1 REL-who come-PVF

        'I saw the man who came.'

  b. ig kan-or   wurɛ   mey ɑg   kan-or

      2sg see-NPR woman-3sg REL-that   1sg   see-NPR

       'You saw the woman that I saw.'

4.2.6 Demonstratives in Daju

There are four of them. *ma* 'this' is singular for the near. *maa* "that" is singular for the remote; while *sa* 'these' is plural for the near. *saa* 'those' is plural for the remote. They can stand alone or be used as part of a noun phrase, and they fallow the nouns except in question case as shown in Examples (12) and (13):

(12) a. *íísὲ* má   b. íísὲ máá

     Sg-N Dem   Sg-N   Dem

      'this dog'   ' that dog'

    c. roŋɛ   ma   d. kəndænɛ máá

     Sg-N   Dem   Sg-N   Dem

     'this morning'   'that hen'

(13) a. áʃkɛ́ sá   b. úrìkὲ sáá

     PL-N   Dem   PL-N   Dem

     ' these goats '   'those women'

    c. cáŋúkὲ sá   d. áwádàkὲ sáá

     PL-N Dem   PL-N   Dem

     ' these scorpions '   'those birds'

  d. ma iisana   e. ma nem nana?

'this is our dog'   'whose this dog ?

The Daju demonstrative system registers two degrees of distance; the proximal forms are derived from the proximal *ma/maa* and sa/saa by either lengthening the

final vowel. These forms provide another illustration of the *n/k* opposition noted by Tucker and Bryan (1966:23), The complete set is shown in Table (4.4).

_____

	Singular	Plural
Proximal	ma	maa
Distal	sa	saa

_____

Table (4.4): Daju Demonstrative Adjectives.

In this table; proximal refers to objects near to the speaker or the addressee respectively, while distal refers to objects far from both the addressee and the speaker. Demonstratives pronouns also exist and are distinct from the demonstrative adjectives.

Tucker and Bryan (1966:238) present a very similar system in the Daju languages Shatt and Liguri. Both languages have a three-term demonstrative system, with the Shatt system having very similar roots to Daju Lagawa. Shatt, like Daju Lagawa divides demonstratives into two categories, demonstratives that function as pronouns and demonstratives that function as adjectives. The Shatt system retains the roots *an* (singular.) and *nk* (plural) in the three-term adjective system, but rather than lengthening the initial vowel in the distal, the Shatt system adds a lengthened. Greenberg (1966:88) notes a nearly identical situation in the Eastern Sudanic language Shilluk. In Shilluk the *n/k* alternation is also used to show the distinction between singular and plural.

4.2.7 The Case System in Daju Pronouns

The different case forms of a pronoun are the different forms which the pronoun has in different sentence positions. Daju has three cases pronoun that is; nominative sometimes abbreviated to (Nom), accusative (Acc), sometimes referred to as objective, and genitive (Gen). Personal pronouns typically inflect overtly for

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all three cases, whereas noun expressions inflect only for genitive case. The different case forms of typical pronouns and noun expressions are given in table (4.5):

NoM (S)	ɑg I	aʃko/excl Onoka/incl we	Ig you	ɑp s/he	ɑnne they	Minn who
ACC (O)	ɑg me	Iʃko/excl Onoka/incl us	Ig you	ap s/he	ɑn them	Me/sg Meŋ/pl Who(m)
GEN Poss	Aŋ/my Nʌŋ/mine	Iʃko/excl Onoka/incl Our/ours	Nʌga/your Ingo/yours	nà s/he	Nʌn/their Neina/theirs	Nimnana whose

Table (4.5) the system of Daju's pronouns

Examples of pronouns subject and object(14):

(14-A)The subject pronouns with in verbs:

(1) First person singular

  a. Ak/ɑg   kan-or   ap

    Isg-I   M-PAT-see   him

         ' I saw him'

(2) Second person singular

   a. Ik/ig   kan-or   ap

   2sg-You   you-M-PAT-see   him

     ' you saw him'

(3)Third person singular

   a. ap   k-or   ap

She/he/it   M-PAT-see   him

'She/he saw him'

(4)First person plural

 a. k-onoka (incl.)   ne-k-or-k   ap

   1PL-We   pre-M-PAT-see-SUF   him

       ' we saw him'

 b. ashko (excl.)   ne-k-or-k   ap

   1PL-we.   M-PAT-M-see-M   him

       'we saw him'

(5)Second person plural

 a. onko   ne-k-an-or   ap

   2PL-you   pre-M-PAT-see   him

       ' you saw him'

(6)Third person plural

 a. Anne   k-or   ap

   3PL-they   M-PAT-see   him

       ' they saw him'

(14-B) The Object pronouns within verbs:

(1) First person singular

 a. Ali   k-aw   ag

   3sg   M-hit   1sg-me

       ' Ali hit me'

(2)Second person singular

   a. Ali   k-aw   ig

     3sg   M-hit   2PL-you

       'Ali hit you'

(3) Third person singular

  a. Ali   k-aw   ap

     3sg   M-hit   3sg-him

              'Ali hit him'

(4) First person plural

a. Ali   k-aw   onoko (incl.)

 3sg   M-hit   1PL-us

     'Ali hit us' (incl.)

b. Ali   k-aw   ishko (excl.)

  3sg   M-hit   1PL-us

     'Ali hit us' (excl.)

(5) Second person plural

a. Ali   k-aw   onko(ongo)

  3sg   M-hit   2PL-you

     'Ali hit you ' (pl.)

(6) Third person singular

  a.   Ali   k-aw   an

     3sg   M-hit   3PL-them

          'Ali hit them'

As is apparent, some pronouns have two distinct genitive forms: a weak (shorter) form used when they are immediately followed by a noun as in *arabeyanaŋ ma* 'This is *my car*'), and a strong (longer) form used when they are not immediately followed by a noun *arabeyanɛ ma nʌŋ* as in 'This car is *mine*'. In Chomsky and Lasnik (1995), it is suggested that the null subject PRO found in control constructions carries null case. In languages like Daju where certain types of expression are assigned case by virtue of the structural position they occupy in a given clause e.g. accusative if c-commanded by a transitive head,

nominative if c-commanded by finite intransitive head, the relevant expressions are said to receive structural case. Where a constituent is assigned case by virtue of its semantic function e.g. a goal complement of certain types of verb is assigned dative case in German, it is said to receive inherent case. In languages like Icelandic where subjects can be assigned a variety of cases e.g. of some are accusative and others dative, depending on the choice of verb and its semantic properties, subjects are said to have quirky case. In the Italian counterpart of a structure like 'She gave him them' the direct object corresponding to English 'them' is assigned accusative case, and the indirect object corresponding to English 'him' is assigned a distinct case, traditionally called dative case.

4.2.8 Anaphora vs. deixis

The time and place where a conversation takes place is sometimes referred to as the speech situation. There are a number of words whose interpretation (or reference) is not fixed, but depends on the specific details of the speech situation. Words of this type are called deictic elements. The term deixis comes from a Greek word which means 'to show' or 'to point.' Deictic elements typically refer to things that the speaker could actually point to while he is speaking. As the table in (15) indicates, first and second person pronouns (e.g. *I* and *you*) are always deictic. Their interpretation depends on who is speaking to whom such as in (15):

(15) a. ce   gage teŋ-e odan   ʾshe puts the cow hereʾ   Aviles A. (2008:28)

    a'. here   odan   where the speaker is

    b. iisɛ tə tuŋ ærɛ   "the dog exists there"

    b'. there   tuŋ   indicated or specified place away from speaker

    c. i-igi dő-h-ó tik   "you are going now"

    c'. now   tik   the time of the speech

    d. murtanɛ ma   "this horse"

    d'. this   ma   something near the speaker, it uses with singular

e. murtanɛ maa   "that horse"

e'. that   maa   something away from speaker, it uses with singular

f. aʃkɛ sa   these goats

f'.these   sa   something near the speaker, , it uses with plural

h. pekkɛ saa   "those persons"

h'.those   saa   something away from the speaker, it uses with plural

g. ag kanor Ali   " I saw Ali"

g'. I   ag   speaker

k. ig kanor Ali " you saw Ali"

k'.You   ig   addressee

The other way in which the semantic interpretation of pronouns may depend on the context of use is called anaphora (literally 'referring back'). Anaphoric elements are words whose interpretation depends on the interpretation of some other element (e.g. a noun phrase) in the same discourse. This other element is called the antecedent. An anaphoric element refers to the same person, place, or thing as its antecedent.

 (16) a, *John* kaw *iis-ana*   b.   *Ali kaɗrow wanənə*

      S   V   O   S   V   O

   'John hit his dog'   'Ali cut himself '

   c. *ap*   kor   *ap*   d. *ap* kalɑgaj *ag*
      'he/she saw him'   'he met me'

4.2.9 Reflexive vs. emphatic pronouns

Reflexive pronouns are anaphoric elements with special grammatical properties. They are subject to certain restrictions which do not apply to normal pronouns. For example, in a large number of languages a reflexive pronoun must find its antecedent within its immediate clause.

Some English reflexive pronouns are illustrated in (17).

(17) a. John has bought *himself* a new Mercedes.

   b. I surprised *myself* by winning the dancing competition.

   c. Mary tried to control *herself*, but could not resist tickling the governor.

Emphatic pronouns in English, and in many other languages, have the same form as reflexive pronouns, but their function and distribution are quite different. Each of the reflexive pronouns in (17) bears its own semantic role and Grammatical Relation, which are distinct from the semantic role and Grammatical Relation of its antecedent. But emphatic pronouns, like those in (18), do not have this kind of independent status within the clause. Rather, they are used simply to highlight the identity of some other phrase, namely the phrase which functions as their antecedent.

(18) a The Governor *himself* will appoint the new police chief.

   b I gave that money to the Governor *myself*.

   c I have a letter of authorization signed by the Governor *himself*.

Of course, there are also many languages in which emphatic pronouns are distinct from reflexives, e.g. German *sich* (reflexive) vs. *selbst* (emphatic). We can describe the status of emphatic pronouns more precisely by saying that they stand in apposition to their antecedents. Two phrases are said to be in apposition when they:

   (i)   bear the same Grammatical Relation; and

   (ii)   (ii) refer to the same individual.

The two phrases often occur next to each other as well, as in the examples in (19):

(19) a. President Reagan, *a former movie star*, was very effective on television.

   b. My brother-in-law, *the new Mayor of Chicago*, has promised to get me a job.

The crucial difference between reflexive and emphatic pronouns, then, is that a reflexive pronoun has a different function in the sentence from its antecedent,

while emphatic pronouns have the same function in the sentence as their antecedents. There are often other differences as well in particular languages. For example, in English and many other languages a reflexive pronoun may not occur as the subject of a sentence. Emphatic pronouns, on the other hand, frequently occur as subjects; in fact, this seems to be their most common usage. To apply this lets examining Daju reflexive pronouns in table (4.6):

English	**Singular**	**plural**
myself	wanʌŋ	------------------
himself /herself /itself	wanɛnə (amɪcɪni)	------------------
yourself	waŋgə	-------------------
yourselves	------------	wanokoŋo
themselves	-------------	wanakŋ
ourselves	--------------	wanokonkə

Table (4.6) Daju reflexive pronouns.

Through the tabe (4.6) we can see that Daju reflexive pronouns divided into two types, according to singular and plural, which compose of *wa+pronoun* means self+pro. (possessive +pronoun), opposite to English i.e. pro.+poss. This feature distinctive Daju language from other language insbite of their same word order SVO, another observe that third person singular uses one form *-nənə* indicate that no gender in Daju language. It can be clear in examples (20):

(20) a. Peter   kæbeh   wanɛnə(amɪcɪni)
       3sg   V-kill   3sg-O-self-him
    'Peter killed himself'

    b.ag   tor   wanʌŋ
    1sg-S V-love 1sg-self-my
    'I love myself'

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c.sərnɛ   mɑ   nemnənə?

  3sg-S-book   DEM-this WH-whose

  whose this book?

The answer should be in one of pronoun: -nʌŋ, -nənə, -ŋgə for singular or

-nokoŋo, -nagŋa and -nokonkə for plural

d.Ali   la   Adam   tro   wa-nakŋ

  3sg-S-CON-and-3sg   V-love 3PL- themslves

  'Ali and Adam like themselves'

e.ɑʃko   aŋgosoa   ani   wa-nokonkə

  1PL-we-S V-proud   PP-with   O-1PL-ourselfves

  'we proud with ourselves'

In (20a) *wa-nɛnə* is reflexive of the noun *Peter*; (20b) *wa-nʌŋ* is reflexive of 1sg *ap* in (20c) this answers is restriction for question. In(20d&e) the conjunction Ali & Adam their reflexive is wa-nakŋ and the 1PL-we-pro *aʃko* its reflexive is wa-nokonkə. We summarize that Daju refexives is appling in all Daju sentences that comose of reflexive and their word order is *wa-* always precedes pronouns and agreements in number.

4.3 SVO languages

SVO languages are the second most wide spread word order type among the languages of the world, more common than verb-initial, but less wide spread than verb-final languages. What we will see is that these SVO languages strongly resemble the verb-initial languages rather than the verb-final languages with respect to the word order characteristics examined; consider the Daju sentence below to explore the word orders:

(21) wurɛ k-or iise

    S   V   O

'The woman saw the dog'

As in the verb-initial languages we examined, Daju employs prepositions:

(22)   ta tarabizani

      Pr   NP

    'on the table'

The order in comparative constructions is AdjMSt as in (23):

(23) sogɛ   ma aber tɛ maa nwæni

            Adj. than

  'this road is better than that one'

   Note that the marker of comparison is the word *tə*, rather than the word *more*. Most languages do not employ a word meaning 'more' in comparative constructions, using expressions that literally translate more like 'this road is better than that one', although the marker of comparison in such languages might be considered to mean 'more than' rather than just 'than'. Adverbial subordinators occur at the beginning of the subordinate clause, as illustrated by the adverbial subordinator *because* in (24):

(24) əʃæn   sogɛ ɟurcɛ

      because it was raining

       Subord Clause

In each of the above characteristics, Daju resembles the three verb-initial language rather than the three verb-final languages.

4.4 The Occurrence of Distribution

   Syntactic arguments are constructed by means of the distributional method: one examines the occurrence or distribution of a grammatical category in a series of different constructions, and existence of the category is justified if the distribution pattern is the same across the constructions. For example, in arguing for the category subject in Daju, the distribution of the immediately preverbal NP is the

same in the constructions illustrated in (25a-f), and justified its categorization as the subject:

4.4.1 The Occurrence of Subject

(25) a. ab kor ap

'he saw him'

b. á-ágí á-dòhó tik /   * ági á-dòhó tik

' I'm going to day' /   * 'I going to day'

c. John $_i$ ŋgə Ø$_i$ tə sija

'John wants to eat. '

d. Ø urí mægὲ

' drink water'

e. John   kɪɲak   ɪɪsɛ$_i$ la kawaŋ ab$_i$ arɛ ani ag

ʿ John found dog and took it with him ʾ

f.* John kiɲak iisɛ la kə kamponɛ

' John found dog and was ax '

In terms of standard syntactic argumentation, (25a-f) give five independent pieces of evidence for identifying the immediately preverbal NP as the subject of the clause. Another way of putting it is that positing the existence of a category subject in Daju is constructing a generalization over the distributional facts presented in (25).

A typological analysis, on the other hand, would not present the preceding facts as arguments for a category subject. The facts in (25) are a generalization formed by examing just one language.

In examples (25a) nominative case of the pronoun *ab* "he" as opposed to *ap* "him" , in (25b) agreement of the verb with 3psg *'ag'* "I", in (25c) the person understood to be eating " *sija* " is John ; John controls the unexpressed argument of the infinitive following *ŋgə* "wants", in (25d) the unexpressed argument in the

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imperative construction or in another way the pro-drop of subject has been seen which supposed as addressee 'you'. In the last two examples in (25e-f) the unexpressed shared argument in a conjoined sentence.

4.4.2 The Occurrence of preposition

Daju is a preposition language, because prepositions precede their nouns and form PP as in the examples (26)

    a. ag kəɗo tə khartoomnɛ *ani* John

' I went to Khartoum with John'

    b. Ali kadiri ittɛ *ani*   kamponɛ

' Ali cut tree with ax'

    c. Ab kawaŋ ani nʌŋ labar

' he daned with me badly'

    d. Sorɛ tə trabizanɛ

' the book on the table'

4.5 Typological classification.

   Typological classification is the process of describing the various linguistic types found across languages for some grammatical parameter, such as grammatical number or the formation of relative clauses and others. The term typology was first used in linguistics in 1901; (Gabelentz 1901/1972:481). The following section will describe the current concept of a linguistic type or strategy as it is sometimes called.

4.5.1 Simple linguistic types

   The first set of constructions is those which do not involve an additional morpheme beyond the forms are adjacency of the possessor and the possessed in one order or other, without any morphological attachment or alteration of either constituent. This type is quite common in Daju:

(27) a. kəndan-ana John

N - G

'John's hen'

b. ær-eena Mary

   N-G

' Mary's house'

The second strategy is morphological chain. In one type of chain, affixation, the possessor is morphologically an affix on the head noun (possessed). This is most commonly found with pronominal possessors, which are affixes:

(28) a. iis-ana

    N-G

'his dog'

b. kuci-nʌŋ

   N-G

'my cat'

However, it is occasionally found with nominal possessors, in which case it is called compounding it involves two roots of major syntactic categories:

(29) a. iisɛ ɓo-nʌŋ

   N   N-G

' my mother's dog '

   Affixation and compounding are historical developments from adjacency: the adjacency elements become morphologically bound.

The third strategy, fusion, combines or fuses the two elements, possessor and possessed, into one unit. Fusion is rare but is found with basic kin terms and pronominal possessors that is possessive modifiers in some languages.

 (30) a. ɓo-nʌŋ/ bon-igi/ɓon-ana

       N-G/N-G/N-G

'my mother/your mother/ her, his mother '

4.5.2 Relational linguistic type.

The nex set of strategy involves the employment of an additional morpheme to encode the relation between possessor and possessed. Relational and indexical morphemes originate from a lexical item in the process called grammaticalization and evolve further to the point that their relational or indexical character cannot be identified.

Relational morphemes are called case markers; bound relational morphemes are called case affixes, and free relational morphemes are called adpositions (prepositions precede and postpositions follow). A genitive case affix is illustrated in (31) and a genitive adposition is illustrated in (32):

(31) a. teɲ-ana Dang

    N-G

   ' Ding's cow'

(32) a. sornɛ   kəlaŋ   ɓo-nʌŋ

    N-book Adj-old   mother-G

    ' my mother's old book'

4.5.3 Indexical Strategies

The most common indexical morphemes are called agreement markers, concord markers, and cross-reference markers. Indexical coded dependencies into two types, depending on whether they encode the category of person, in personal pronouns or in demonstrative pronouns. There are two types, person indexation and nonperson indexation. Person indexation can be illustrated by the indexation of a possessed noun with its possessor.

(33) a. aʃka-**na**   Mohammed

    goat -3SG

     'Mohammed's goat'

Person indexation arises through the attachment of a personal pronoun, usually to the head noun (or verb, in clauses), but sometimes to another constituent.

When we look at the order of genitive and noun in Daju, we find one constructions, in it the genitive follows the noun, as in (34b).

(34) a. iis-aŋ

    N G

  ' My dog'

   b. tɛ   ær-eena

     at   house his

     pre.   N G

    ' at his house'

  c. ap   kunduk-eena   kodoss

   3sgp NOM-POSS   NUB

    ' She/he has three hens '

The general strategy is to try to identify the orders as in some sense more basic. We will assume that in the case of genitive and noun in Daju, order is basic relative to the other and that Daju should thus be classified as NG, as a language in which orders of genitive and noun occur and in which there are strong arguments for treating this orders as basic.

4.5.4 Identify the Manner Adverb

In the case of manner adverbs, Daju exhibits both orders of Adv, initial and final as in (35).

  (35)a.John   məcidk   kwedi təri artgɛ

            Adv.   V

' John slowly walked into the room'

    b. ' John kwede təri artgɛ məcidk'

        V   Adv

'John walked into the room slowly'

c. John   k-jəhsə   éttɛ̀

      V-shout   Adv.

    'John shouted loudly'

Here, there are arguments that the order VAdv is the basic order.

(36) a.John macidk waɗa   b. John waɗa macidk

  ?*John is slowly walking.   'John is walking slowly'

If we can assume that the first order is basic, then we can say that Daju is Adv.V but this argument is the fact that, in other contexts, the order V Adv is strongly preferred, as illustrated by (35b-c).

(37) Peter kaɗo sərɛ   ta Maria

     S   V   DO   IDO

   'Peter gave a book to Maria'

The example in (37) also illustrates that Daju is prepositional, the preposition *ta* 'to' preceding its object.

4.6 Case

Dixon, (1972), points out that grammatical pattern transitive clause and intransitive clause mark by using the letters S, A and O are the most common symbols used for the three primitives. However, some scholars use P (for patient) in place of O (e.g. Comrie 1978) while Lazard and his colleagues employ X, Y and Z for A, O and S respectively (e.g. Lazard 1986,1991). :

S - intransitive subject   *John (S) ka-do*

A - transitive subject   *John(A) k-or kuccɛ(O)*

O - transitive object   *ɓonɛ (A)kaɗo awadɛ̀ tə kuccɛ(O)*

(38) a. Men-ɛ   kɑ-ɓo

     Father-ERG   retrun-NUNFUT

      'father(S) returned'

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b.ɓon-ɛ   kɑ-ɓo

 mother-ERG return-NUNFUT

  'mother(S) returned'

c.ɓon-ɛ   k-or   men-ɛ

 mother-ERG K-see-NUNFUT father-ACC

   'mother(A) saw father(O)'

d.men-ɛ   k-or   ɓon-ɛ

 father-ERG K-see-NUNFUT mother-ACC

   'father(A) saw mother(O)'

  The core argument of a canonical, one-place intransitive predicate may be symbolized S in (38a-b). The two core arguments of a canonical, two-place transitive predicate may be symbolized as A and P, with A representing the more agent-like argument and P the more patient-like (38c-d). In studying the case marking, we ask the question which of S, A, and P are coded identically and which are coded differently.

  In the neutral case marking system, all of S, A, and P are marked in the same way. This can be illustrated by Mandarin examples (39a–b), where neither the S of (39a) ('the person'), nor the A of (39b) ('Zhangsan'), nor the P of (39b) ('Lisi') receives any case marking. (39) Mandarin (Li and Thompson 1981: 20).

(39) a. *rén*   *lái* *le*

    person (S) come crs

    'The person has come.'

  b. *zhāngsān* *mà* *lǐsì* *le* *ma*

    Zhangsan(A) scold Lisi(P) crs q

    'Did Zhangsan scold Lisi?'

In the nominative–accusative or accusative case marking system, S and A are marked in the same way, while P is marked differently. The form used to encode S and A is referred to as the *nominative*, the form used to encode P as the *accusative*, as illustrated in Latvian examples (40a–b). (40) Latvian (Mathiassen 1997:181-187).

(40) a. *Putn-s   lidoja.*

bird-nom   fly.pst.3

'The bird was flying.'

b. *Bērn-s   zīmē   sun-i.*

child-nom draw.pres.3 dog-acc

'The child is drawing a dog.'

The definition of the nominative–accusative system says nothing about *how* the distinction between S/A and P is marked. In Daju, both nominative and accusative have overt markers. However, it is also possible for just the accusative to have an overt marker, as in Hungarian, where the word for 'person' is *ember* in the nominative, but *ember-t* in the accusative. Much less frequently cross-linguistically, it is the nominative that has an overt marker and the accusative that lacks one, as in Harar Oromo (Cushitic, Afroasiatic; Ethiopia) examples (41a–b). (41) Harar Oromo (Owens 1985: 101, 251).

(41) a. *sárée-n   adii-n   ni   iyyi-t-i*

dog-nom   white-nom foc bark-f-impf

'The white dog is barking.'

b. *haat-tii   okkóttée   goot-t-i*

mother-nom pot   make-f-impf

'Mother is cooking (lit. making the pot).'

The marked nominative type illustrated by Harar Oromo is a topic of current typological and theoretical interest, it has been given a separate encoding in the phrase, contrasting with the standard type where either just the accusative or both nominative and accusative are marked.

In the ergative–absolutive or ergative system, S and P are encoded in the same way, and A is encoded differently, as in Hunzib (Nakh-Daghestanian; eastern Caucasus) examples (42a–b). (42) Hunzib (van den Berg 1995: 122)

(42)a. kid   y-ut'-ur

      girl (S)   cl2-sleep-pst

      'The girl slept.'

  b. oždi-l   Kid-Ø hehe-r

      boy-erg(A) girl (P) hit-pst

      'The boy hit the girl.'

The case that encodes S and P is referred to as the *absolutive*, the case that encodes A as the *ergative*. In an alternative terminology, the case that encodes S and P in the ergative–absolutive system is referred to as the *nominative*. This usage is not adopted here, to avoid confusion. In Hunzib, the ergative case has an overt marker, *-l*, while the absolutive does not. However, it is also possible for both cases to have overt markers, as in:Malayo- Indonesia; Donohue,(1999a:51), where the preposition *na* marks the absolutive, the preposition *te* the ergative. The "marked absolutive" is rare, having been so far found only in Nias (Indonesia), language where the absolutive is marked by modifying the initial segment of the ergative (Brown 2001).

In the tripartite system, all of S, A, and P are marked differently. This system is found for some noun phrases in Daju, as illustrated in examples (43a–b).

(43) a.John   kɑ-ɗoho   intransitive subject

       John-Ø (S)NOM   M-PST-leave

          ' John (S) left'

      b.ɓaɓan-ɛ   k-or   ɓon-ɛ

       father-ERG   M-PST-see   mother-ACC

       'father (A) saw mother(O)'   transitive subject

In (43a), the S has no overt marker. In (43b), the A has the ergative postposition -ɛ while the P (O) has the accusative postposition –ɛ. For only one language in Nilo-Saharan has been claimed that all noun phrases have the tripartite system, namely Daju Lagawa language; while in case of common nouns and pronouns Daju exhibit Nominative-Accusative system.

4.7 Split systems

Compare the following examples with those in (38) above:

(44) a. ɑʃko   kɑ-ɓo

      we:NOM   M-return-PST

        'We (S) returned'.

     b.Ongo   kɑ-ɓo

     You-NOM   M-return-PST

       'You (S) returned.'

    c. Ongo   **k-on**-or   onokɑ (INC)

    You-NOM   M-ERG-see-PST   us-ABS

    d.Ongo   **k-on**-or   ıʃko   (EX)

    You-NOM   M-ERG-see-PST   us-ABS

         'You (A) saw us (O).'

The nouns referring to 'father' and 'mother' in (38) are assigned ergative and accusative case when they are subjects or objects; they have marker because the ergative case have actual realization. However, they are marked with the ergative suffix '-ɛ' when they carry the function (A). In contrast, the first and second person pronouns in (44) are assigned nominative case when they are transitive or intransitive subjects; they are non-inflected because the nominative case has zero inflection. Transitive object pronouns are, yet, marked with the abslotive ending.

(45) a. ɑg- Ø   kɑ-n-or   ɑp-Ø

    1sg-I-NOM   TRN-V-see   3sg-him-ACC

      'I saw him'

   b.ig   ki-ɗo

    2sg-NOM (S) M-3sg-INTR

     'you left'

4.8 The Inflections

The examples in (46) show that languages with rich morphology have special inflections to the NPs in the accusative and ergative forms. Given that case is a property of the whole NP, case inflection can occur on "the head word, or just on a word of a certain word class, or just on the last word, or on every word" (Dixon 1994:40). Consider the following examples of Daju:

(46) a. pr-wur-ɛ   k-aw   iis-ɛ

    girl:ERG   hit   dog-ACC

    'The girl(A) hit the dog (O)'.

  b. ɓaɓan-ɛ   k-aw   pæʃ morrtæ-nɛ

    man:ERG M-PST- hit   white-horse(AdjP)- ACC

    'The man (A) hit the white horse (O)'.

  c. morrtæn-aŋ ɓog-ɛ

    horse-GEN   chief

'The chief's horse'.

      d. morrtæn-aŋ purr ɓog-ɛ

      horse-GEN red chief

      'The red chief's horse'.

In (46a), Daju ergative case marker put on overt NP in A function whereas in (b) the accusative marker is attached to the adjective phrase qualifying the object NP. Likewise, in (46c) the genitive case marker '-aŋ' is suffixed to the NP referring to the possessor also in (d) the genitive case marker is suffis to the noun that modifiers by adjective *purr*. Hence, case inflection in Daju surfaces on the appropriate NP.

The question of case inflection being optional emanates from the fact that languages can as well offer some other ideas to identify the basic syntactic relations. These clues are related to the semantic properties of the elements in addition to agreement (cross-referencing) markers and the pragmatic context.

Dixon (1994) points out that in Murinypata (a non-Pama-Nyungan language from north Australia) the ergative inflection is not used when the distinction between A NP and O NP is inferrable from either "(a) the cross-referencing prefixes or (b) the semantic nature of the NPs and of the verb, and the pragmatic context". Typical examples can be drawn from Arabic:

(47) a. Dharab-a-t   ?albintu   ?alwalad-a

     beat-PAST-Feminine   the girl:NOM   the boy-ACC

         'The girl (A) beat the boy (O)'

    b. Dharab-a   ?albint-a   ?alwaladu

      beat-PAST   the girl-ACC   the boy:NOM

       'The boy (A) beat the girl (O)'.

    c. *Dharab-a   ?albintu   ?alwalad-a

      beat-PAST   the girl:NOM   the boy-ACC

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'The girl (A) beat the boy (O)'.

d. katab-**tu**   ?a'ddars-a

write:PAST-1SG **SU**   the lesson-ACC

'I wrote the lesson'.

e. katab-**na**   ?a'ddars-a

write:PAST-1SPL **SU**   the lesson-ACC

'We wrote the lesson'.

The verb in (47a) encodes information about the gender and person of the subject represented by the feminine marker '-t'; in (47b), despite the precedence of the object to the subject (non-canonical word order), the verb tells us which NP is the subject by having zero gender inflection. Having the canonical constituent order and therefore the appropriate case inflection, the structure in (47c) is incorrect because the verb doesn't agree with the subject in terms of gender. (43d and e) show that first person subjects in Arabic sentences are always indicated by dependent pronominal affixes (such as *–tu*, *-na*) attached to the verb; case inflection, therefore, is not of so much importance as to signal the syntactic relations in such type of sentences. Hence, all other factors being preserved, speakers of Arabic can easily tell the subject of the sentence only by using the information cross-referenced by the verb. Interestingly, although books of Arabic grammar highly emphasise case inflections, people can still achieve intelligibility and conformity to the standard variety without giving full production of case markers in their discourse. In spoken Arabic people pronounce case inflections only when there is no other way to remove ambiguity while most of the written discourse is devoid of representation of case inflections.

These examples demonstrate an important point that in Daju it is the function of an NP that determines its availability to grammatical operations, not its form.

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In summary, the terms 'ergative' and 'ergativity' and 'accusative' and accusativity' - may be used; to describe the ways in which, the syntactic functions of predicate arguments are marked in simple transitive and intransitive clauses, i.e. whether S is marked in the same way as O and differently from A (an ergative arrangement) or whether S is marked in the same way as A and differently from O (an accusative arrangement). This is 'morphological' or 'intra-clausal' ergativity/accusativity and it relates to the marking of syntactic relations in derived structure (not at any level of underlying structure). We note that Daju marked differentally,S, A and O system (N+-ε) and this is unusual in Nilo-Saharan languages; it calls tripartite language.

4.9 Summary of chapter four

In summary, we see that Daju resembles the verb-initial languages in all respects VO: it has NG word order for the order of genitive and noun. It turns out that Daju is atypical as an SVO language in this respect: in most Daju sentences SVO order can be identified as basic, in some SVO languages the order we find is GN, while in others it is NG. The two other SVO languages resembling verb-initial languages in their word order characteristics. Adjective follows the nouns in word order N/Adj. Daju is an instance of ergasive/accusative agreement marking languages; languages that cross-reference both S and A in the same way. Daju case system, then, aligns core arguments as SA/O and differentiates between them by using morphological marking, subject-verb agreement, or even syntactic position when the former markers do not work. The universal status of a-and p-subject Daju is tripartite language because it marks differentin system. We can summarize the distinctive features of Daju language bellow:

Abbreviation	word order exhibit in Daju
SVO	subject-verb-object
S-AUX-V	subject auxiliary – main verb

VO	verb object
PP	prepositional language
NG	genitive noun
ERG/ACC	ergative/accusative marker
NOM/ACC	nominative/accusative in pronominal
N/NUM	noun/number
N/DEM	noun demonstrative
SA/O	subject Agent/object
HF	head first
NA	noun adjective
VAdv.	Verb adverb
WH-elements initial	WH-elements initial in syntactic movement
WH-word	final question particle

CHAPTER FIVE

X-BAR THEORY & ITS PRINCIPLES

5.0 Introduction

This chapter concerns with the discussing of the syntactic theories in Daju langage, it sheds alight on x-bar theory form, and its principles; that is, head parameter, complements, projection, government theory, binding theory,syntactic movement, pro-drop parameter, and empty category.

The basic three-level of X-bar theory is as the follow:

a.　　　　　XP　　　　　　　　　　b.　　　　　XP

Or

(Specifier) YP　　　X'　　　　　　　　　　X'　　　YP(specifier)

X(head)　　ZP(comp)　　　　　ZP(comp)　　X(head)

a. Daju phrase structure　　　　　　b. Hindi phrase structure

A head-first　　　　　　　　　　A head-final
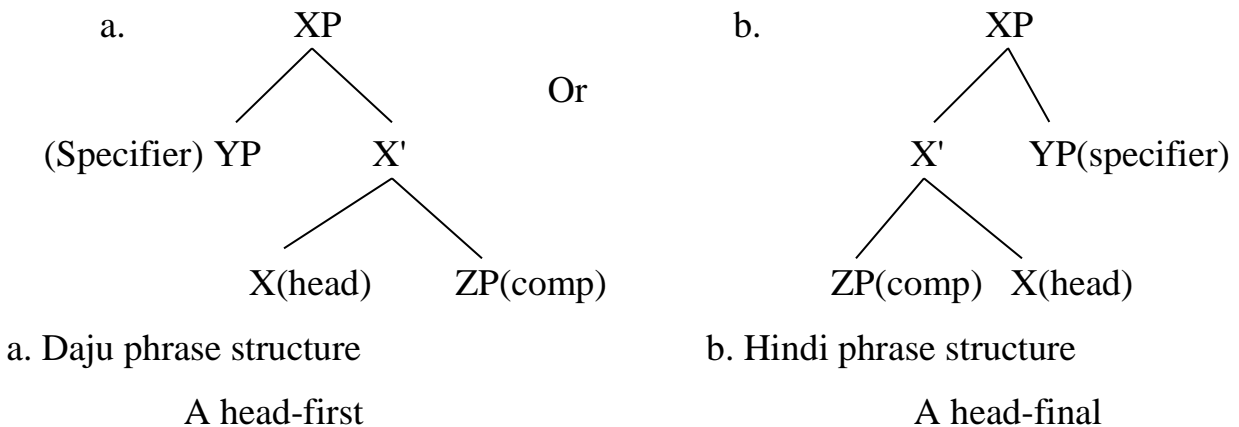
Figure (5.1) represents X-bar theory form.

Figure (a.&b.) tell us that the first level is the XP itself. The second level consists of a specifier, which functions as a modifier (and which is generally an optional constituent), and an X' (i.e., "X-bar"). For example, an NP specifier is a determiner; a VP specifier is an adverb such as *never* or *often*; an AdjP specifier is a degree word such as *very* or *quite.* The third level is an expansion of X' and consists of a head X and a complement, which may itself be a phrasal category, thus giving rise to recursion. X-bar structure is thought to be universal, occurring in all the world's languages, though the order of the elements inside XP and X' may be reversed, as we saw in Japanese. The rule is also able to account for the varying possibilities of the placement of specifier, heads, and complements. In the

discussion of X-bar syntax of phrases, we will that X-theory has developed schema that is so powerful as to account for all the complexities phrases may offer. In the following section we will see which word or group of words that may be identified as a phrase.

5.1 X-Bar theory

In "remarks on Nominalization," Chomsky (1970) proposed an alternative to the kinds of phrase structure (PS) rules presented in this chapter. His proposal was an attempt to constrain the set of possible PS rules. Basically, the idea is that phrasal categories (e.g. VP, PP, NP, and AP) all have heads that belong to the same categories. In this present study we offered an informal description of what a head is namely, that a phrase says (pp) has a lexical category (p, for pp) as its head. But what stops us from formulating a rule such as VP ⟶ NPP, in which the head of VP would be.

a. XP   b.   PP   c.   VP   d.   AP

X   comp   P   Comp   V   Comp   A   Comp
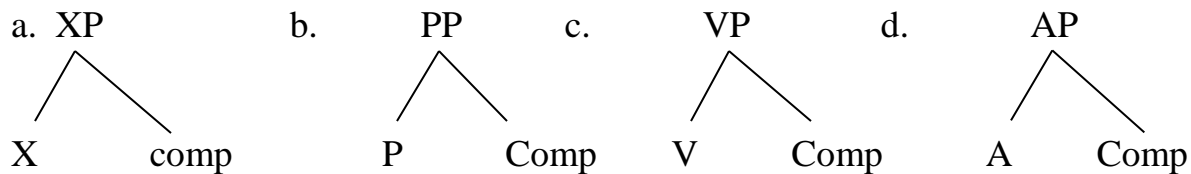
Figure (5.2) represented the head of the phrase and complement.

The four types in figure (2a-d) tell us that (2a) represents the XP itself, while the categories X that represents by (p..,v...,A...) stand for head for each complement; these trees represent Daju language, but every language has its own structure as seen below in figure (3):

a. PP   b. VP   c. AP

P   NP   V   NP   A   PP

Tə   ɑɑrɛ   hit   the ball   proud   of Mary
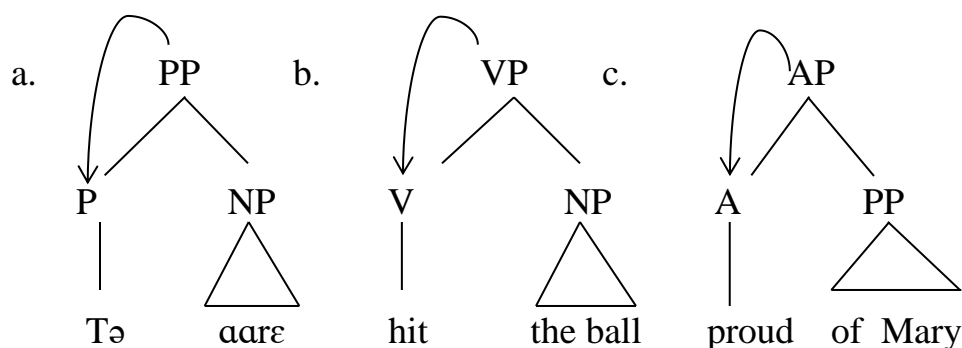
Daju: 'in the house'   English:'hit the ball'. English: 'proud of Mary'

Figure (5.3) representations the head of PP, VP and AP in Daju and English

5.1.1 X-bar schema for phrasal projections

Haegeman (1994:104), points out that X-bar theory captures the common properties in the structure of phrases and formulates them in rules (4). X-bar schema tells us that phrase projection involves two levels: the maximum projection referred to as XP and the intermediate projection termed as X'. The start of the projection is the head indicated as X'. Heads are terminal nodes dominating words. The theory assumes that complements merge with X to form X' projections (4c); adjuncts merge with X' to form X' projections (4b), the star in (4b) indicates that X' can be repeated. Maximum projections (XP) are then the combination of specifiers with X' as in (4a). However, rules (4) as such do not accommodate the cross-linguistic variations arise from the position of the head in relation to its specifiers, adjuncts, and complement; languages differ as whether specifeirs, adjuncts, and complements precede or follow their heads. Andrew Carnie (2002, p 143) provides a set of rules that account for the involvement of each element and allow for the possibilities of word order languages may offer. In addition, Carnie uses (YP) for specifier phrases, (ZP) for adjunct phrases, (WP) for complement phrases, and the brackets to indicate the items enclosed are optional; consider the rules below:

(1) a. XP $\longrightarrow$ (YP) X' or XP $\longrightarrow$ X' (YP)

     b. X' $\longrightarrow$ X' (ZP) or X' $\longrightarrow$ (ZP) X'

c. X' $\longrightarrow$ X (WP) or X' $\longrightarrow$ (WP) X

Rules (5.4): X-bar schema for phrasal projections (modified)

Using rules (1), we can dispense with separate statement of language-specific phrase structure rules. They enable us to represent the phrase structure of all languages; see the following diagrams:(5.5)

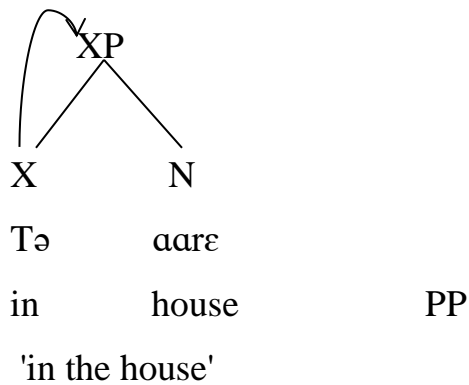(5.5)a.Hindi: ghar   mɛɛ   head-last (HL)

XP $\longrightarrow$ ....X....

     N   X

    ghar   mɛɛ

    house   in   NP

    'in the house'
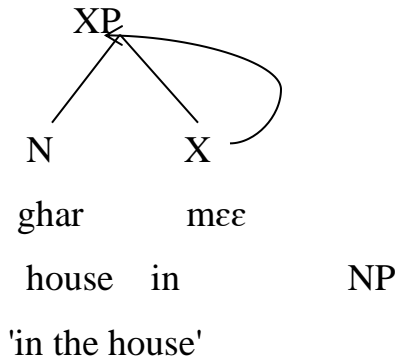
b.Tigrinya: nay   maθ   head-first (HF)

     X   N

      nay   maθ   PP

    'of math'

c.Daju: tə   ɑɑrɛ   head-first (HF)

     X   N

     Tə   ɑɑrɛ

     in   house   PP

    'in the house'
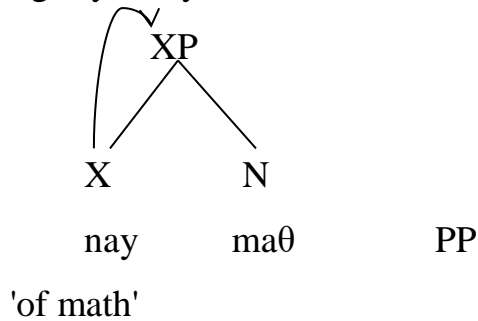
d.English: the boy 'hit the ball'   head-first (HF)

```
              →XP
            /    \
          X        N
         Hit    the ball              VP
```
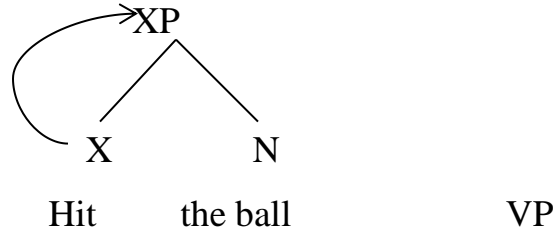
Figure (5.5): Tree diagrams of Hindi, Tigrinya, English and Daju phrases.

Despite the fact that the tree diagrams in figure (5.5) represent different phrase types from different languages, their structures conform to the X-bar schema represented by rules (5.4). Accordingly, X-bar theory claims to have provided a single powerful schema for the description of the structure of all phrase types in all languages and stands as a descriptively adequate theory of grammar.

Head-complement order: X (YP) or (YP) X

Hindi is a head-last language whereas Daju is head-first; both Hindi and Tigrinya are SOV languages, but only Tigrinya has Prepositions; thus both English and Daju are SVO languages, and both have preposition as represented in the four languages, Daju, English, Hindi and Tigrinya. In the following section, we will see the description of functional phrases through the head parameter and complement.

5.1.2 The Head Parameter

The constituent of a phrase that is grammatically the most important constituent of that phrase is called the `head' of the phrase. The head usually determines the category of the phrase, as well as many of its other properties. Thus noun phrases have nouns as heads; verb phrases have verbs as heads, etc. The term is used ambiguously to refer to the word that functions as head of the phrase and any subphrase containing that word. For example: *John kawza anı mæssɛ,* both *kawza* and *ani mæssɛ* can be called heads of the noun phrase.

John   kawza   anı   mæssɛ

'John fired with a gun'
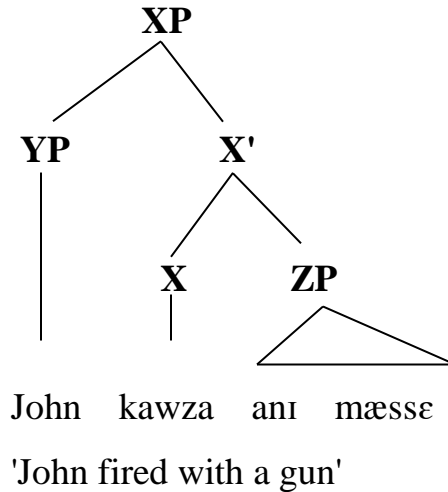
Figure (5.6) Daju sentence represenes in tree diagram

   Phrase structure trees also show relationships among elements in a sentence.
For example, the *subject* and *direct object* of the sentence can be structurally
defined. The subject is the NP that is closest to, or immediately dominated by, the
root S. The direct object is the NP that is closest to, or immediately dominated by,
VP. It specifies the order of certain elements in a language. One distinctive claim
is that the essential element is each phrase is its head such as:

Ali   kɑdiri   ıttɛ

'Ali cut the tree)

Figure (5.7) Verb phrase VP

b.　　　　　　　　NP

```
              NP        VP
              ap    kaŋad tə ag
```

' he spoke to me'

Figure (5.8) Noun phrase NP

c.　　　　　　　　PP

```
              P         NP
```

ɑg   kiɓɑgɑ ŋroʃkɛ *mnrra*　　*bankinɛ*

'I took the money from the bank'
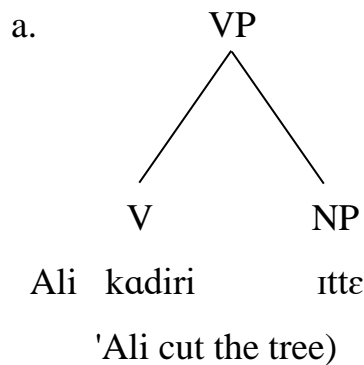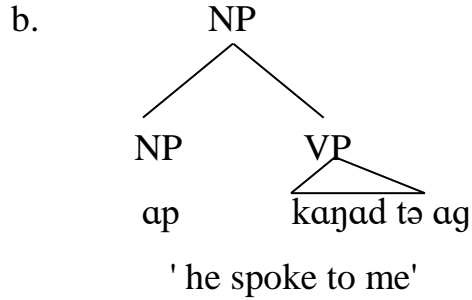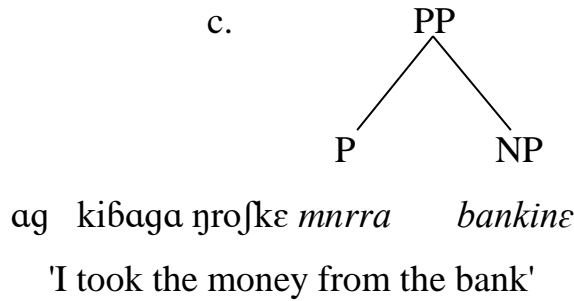
Figure (5.9) Prepositional phrase PP

The figures tell us that each element of the phrase represents the head of it's the same category such as in figure (5.6) NP is the head of both VP and PP; while figure (5.7) V stand for head of the complement of VP, hence (5.8) NP is the head of the constituent VP; this point can discussed below, and figure (5.9) p stand for head of pp.

Cook (1996:133) states that 'X-bar syntax insists that phrases must be endocentric: a phrase always contains at least a head as well as other possible constituents'. Hence, a noun phrase (NP) such as *a book of poems* contains a head *book;* a verb phrase (VP) *eat hotdog* contains a head *eat.* X-bar syntax stipulates that the head of the phrase must belong to the particular category which labels the overall phrase. This requirement can be formulated as follows:

NP　⟶ … N…..

VP　⟶ …V……

The formulas above tell us that a V (verb) cannot act as head of NP (noun phrase) nor an N (noun) can act as head of VP. Hence, we judge structures such as

'the milk cows the shepherd' as ungrammatical due to wrong selection of head. Cook argues that the head relatedness to its phrase type is not a matter of chance. Smith, N (2004) goes in the same direction as Cook by claiming that phrase structure is characterized by the generalization that X phrases contain Xs as their heads. Such generalization can be formalized as follows:

$$XP \longrightarrow \ \ldots X \ldots$$

The x on both sides of the formula refers to the same category; any phrase labeled XP, where X stands for any of the categories nouns, verbs, adjectives, or prepositions, must be headed by X of the same type. This principle of phrases must have heads of the same category as the phrase itself is central in X-bar theory, Cook (1996).

5.1.3 The Complements in x-bar theory

The lexical head of a phrase characteristically selects which arguments co-occur with it, and some of these are referred to as `complements.' When the phrase's head is a verb, the complements include what are traditionally called direct and indirect objects, as well as some prepositional phrases and subordinate clauses Subjects; and determiners of NPs are arguments that are not complements, but specifiers. Complements occur as sisters to the lexical head in syntactic structure and, in English, follow the head. For example, a verb such as *hit* takes one complement, namely, an NP (e.g. hit *the ball*); *rely* takes a PP complement (e.g. rely *on Sandy*). A preposition such as *in* also takes a single NP complement (e.g. in *the box*). Some nouns can also take complements, such as *picture* which takes an optional PP complement (e.g. picture *of Kim*).

Another kind of relationship is that between the head of a phrase and its sisters. The head of a phrase is the word whose lexical category defines the type of phrase: the noun in a noun phrase NP, the verb in a verb phrase VP, and so on. Reviewing the PS rules in the previous section, we see that every VP contains a verb, which is

its head. The VP may also contain other categories, such as an NP or CP. Those sister categories are complements; they complete the meaning of the phrase. Loosely speaking, the entire phrase refers to whatever the head verb refers to. For example, the VP *find a dog* refers to an event of "finding." The NP object in the VP that completes its meaning is a complement.

The CP (complementizer phrase) in the sentence "I thought *that the child found the dog*" is also a complement. (do not confuse the terms *complementizer* and *complement.*) Every phrasal category, then, has a head of its same syntactic type. NPs are headed by nouns (N), PPs are headed by prepositions (P), CPs by complementizers, and so on; and every phrasal head can have a complement, which provides further information about the head. In the sentence "The death *of Lincoln* shocked the nation," the PP *of Lincoln* is the complement to the head noun *death.* Other examples of complements are illustrated in the following examples, with the head in italics and the complement:

(1) a. Ap   *kwza*   *ani*   *mæssɛ*   VP

     S   V   O(PP)

    'He /she fired with agun'   pp

    d. ɓogɛ kor *Kiinɛ máá* *kəw* *sæna*   CP

      S   V O(CP)   V   O

   'the boss saw that person struck his head'

    e. ag kaɗo *sərɛ ta ɓaɓaŋi*   NP

      S   V   O(NP)(PP)

     I gave the book to the man

   Each of these examples is a phrase (NP, AdjP, PP, VP) that contains a head (N, Adj, P, V), followed by a complement of varying composition such as CP in the case of *the boss*, or NP PP in the case of *gave*, and so on. The head-complement

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relation is universal. All languages have phrases that are headed and that contain complements.

However, the order of the head and complement may differ in different languages. In Daju, for example, we see that the head comes first, followed by the complement that means Daju is Head-complement order. In Japanese, complements precede the head, as shown in the following examples; Paul R. (2005:84):

(2)Taro-ga   inu-o   mitsuketa

Taro-subject marker dog-DO marker   V- found

        'Taro found a dog'

(3) Inu-ga   niwa-de   asonde iru

    DO   PP-comp   V-play

  dog-subject marker garden-in playing is

    'The dog is playing in the garden'

In the first sentence, the direct object complement *inu-o* "dog" precedes the head verb *mitsuketa* "found." In the second, the PP complement *niwa-de* "in the garden" also precedes the head verb phrase. Another test Daju is a VO language, meaning that the verb ordinarily precedes its object, in (5) the word order in all sentences SVO. Japanese is an OV language, and this difference is also reflected in the head/complement word order.

An important way in which language very concerns where the head occurs in relationship to other elements of the phrase, called complements. The head of the phrase can occur on the left of the complements or on their right; let's examine the Daju phrase to identify the position of the head we use arrow's curve refers to head.

NP

N   PP

sɒrnɛ   tə ɓaɓanɛ   HL
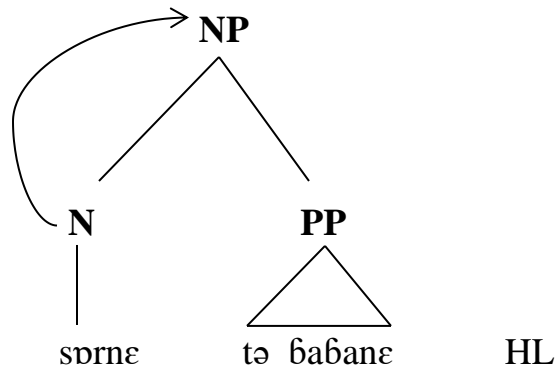
I gave "the book to the man"

Figure (5.10) Noun phrase

The head noun 'sɒrɛ' appears on the left of the complement 'tə ɓaɓanɛ' this position of anoun indicates that NP in Daju engages head-left.

In the VP: VP

V   NP

Kor   ap sognɛ   HL
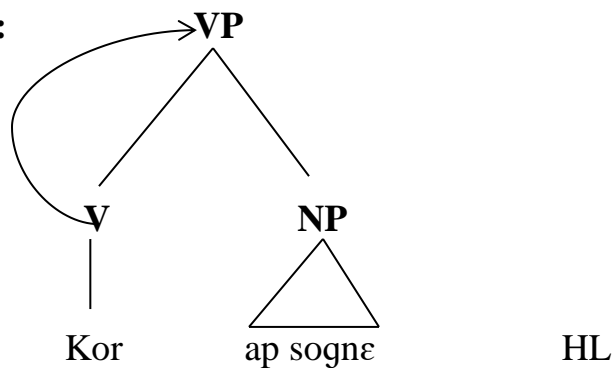
' Showed her the way'.

Figure (5.11) Verb phrase

One head verb 'kor' appears on the left of the complement 'ap' and 'sognɛ'.

PP

P   NP

tə   ba

head   Comp
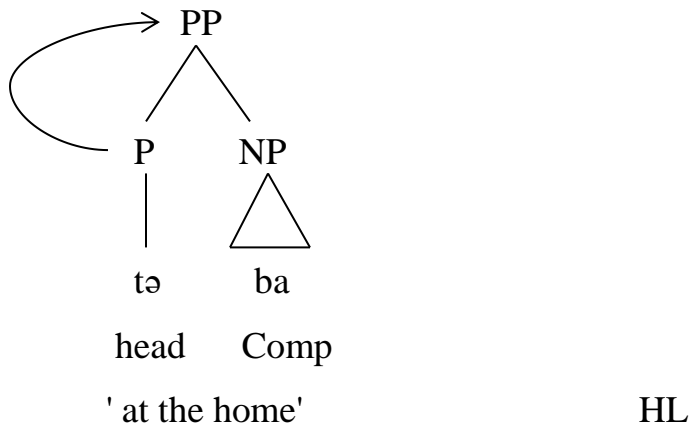
' at the home'   HL

Figure (5.12) prepositional phrase

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The head preposition 'tə' appears on the left of the 'complement 'ba' the home', so in this case Daju exhibits head-left. There are two possibilities for the structure in human languages.

Head-left   HL

Head-right   HR

Chomsky (1970) suggested that the relative position of heads and complements needs to be specified only once for all the phrases in a given language. Human beings know that phrases can be either headed-first or head-last; an English speaker has learnt that English is head-first; a speaker of Japanese that Japanese is head-last; a speaker of Daju that Daju is head first and so on. The variation between languages can now be expressed in terms of heads occur first or last in the phrase. This is head parameter, the variation in order of elements between languages amounts to a single choice between head first or head last.

5.1.4 The Projection Principles

This principle owes greater emphasis to the lexical properties of the lexical items as they affect syntactic structures. Besides their pronunciation and morphological form, words are said to bear information that determine their syntactic distribution and co-occurrence. Haegeman (1998:55) states projection principle as 'lexical information is syntactically represented'. In simple terms, lexical items cast their morphological and syntactic properties to structures in which they are incorporated. As we have seen in the discussion of headedness principle, the phrase is labeled after the grammatical category of its head. Taken as a key lexical property, the grammatical category of the head word serves as a label of the resulting phrase and therefore assumes the presence of the other corresponding properties. Cook, et. al (1996) point out that principles and parameters theory relates the syntactic description of sentences to the lexical properties. It devises the projection principle to account for the fact that lexical

items properties are projected onto syntactic structures; the lexical properties determine how the words may be used and the environment in which they occur. They place restrictions as to specify the environment in which a word may occur. For example, verbs have properties which tell whether object noun phrases are allowed.

Speaker of a language knows:

a. What do words in language means?

b. How they can be combined to make sentences?

The theory integrates the syntactic description of the sentence with the properties of lexical items via the projection principle, which requires the syntax to accommodate the characteristic of each lexical item. It has always been recognized that there are restrictions on which words can occur in which constructions. Some verbs are followed by object NP. *Adam prefers cool drink* but not *Adam prefers*. Other verbs are not followed by NP, for instance peter fainted. Not:

a. Peter fainted the cat.

The linguistics description expresses this through the lexical entry that each item has in the lexicon. The lexical entry for each verb in the dictionary has to show whether or not it is followed by a NP, i.e. whether it is transitive or intransitive. A particular verb has its own combination of possibilities. The verb for example can be followed by an object NP.

(4) a. ag   kanor ɓaɓanɛ

NP(S) VP   NP(O)

'I saw the man'

In Eglish a phrase starting with to: I want *to leave*; but it may not be followed by a phrase starting with 'that' I want that bill leaves. Unlike for instance, *believe I believe that bill left*. Hence the entry of 'want' is something like: Want verb (− NP/To-phrase) where the slash **"/"** shows either / or the projection principle is a

further universal of human language integrate their syntactic rules with their lexical entries in this fashion. There is no logical necessity for language to be this way and no obvious means by which a child could acquire it, the projection principle also seems a built in feature of the mind.

Cook et. Al (1996) shows that the context for the verb may be represented as in (20) below where the underlined gap is specified for the item itself; this is referred to as a sub-categorization frame:

(5) like Verb [___ NP]

This entry means that the verb '*like*' must be followed by an NP. However, verbs may offer complex and varying complement options. Consider the following examples:

(6)a. I want a cup of tea

b. I want to sleep

c. * I want that he stays

d. I believe that Jack is innocent

e. I believe him

In 21, the verb *want* selects for its complement an object noun phrase as in (a) or an infinitive phrase as in (b), but it cannot be followed by a *that-clause* as it appears to be erroneous in (c). Likewise, the verb '*believe*' selects a *that-clause* as in (d) or a noun phrase as in (e) as complement options. Hence, the entries for the two verbs can be represented in (7) below where the slash '/' means either/or

(7)a. want Verb [__ NP/to-phrase]

b. believe Verb [__ NP/that-clause]

In this fashion, the lexical properties of each lexical item are packed in its lexical entry. The restrictions that specify the occurrence of each lexical item are *inter alia* stored in the speaker's mental lexicon.

Given that verbs subcategorize into transitive and intransitive, a grammar of any particular language may contain rules for the description of the verb phrase structure such as: 'a verb phrase consists of a verb and an optional noun phrase' or it can be formulated as VP ⟶V (NP)

Cook 1996:18) states that the verb phrase consists of a verb and an optional noun phrase; the brackets indicate that the bracketed item is optional. However, Cook explores, this rule seems to be redundant since it repeats the same information incorporated in the lexical entry.

5.1.5 The Government Theory

This refers to a syntactic relationship of high abstraction between 'a governor' and an element that it governs. A verb governs its object NP as in:

   (6) a. Jane torow ag

            S   V O(NP)

            Jane loves me

Verb NP Where the verb *torwo* 'loves' governs the NP 'ag'. A preposition also governs its NP:

   (7) a. ɓaɓani kəlaŋ kləgeji *tə ap*

         'The old man spoke ***to*** her'

   In example (a) the preposition *'tə'* governs the NP *'ap'*. The possible governors are the categories Noun, verb, adjective and prepositions. If the relationship of government obtains between two elements in the sentence, there is one-way flow of influence from the governor to the governed. So the fact that the preposition *'tə'* governs the NP means that the pronoun has the form *áp* 'her' rather than *àb*'she'. *'to her'* not *'to she'*. In more technical terms, the object of the preposition appears in the accusative case (ap) rather than in the nominative case (ab) similarly the objects of verbs also appear in the accusative rather than nominative case.

   (8) a. Jane torow *ag*

'Jane   loves me'

b.Jane torow *ak*

'Jane loves I'

The verb *torow* governess the NP object *ag*/*ak* and thus determines that it appears as the accusative form 'ɑg/ɑk' rather than the nominative for I Inflection (INFL) the element INFL represents inter between the grammatical elements tense and agreement. Tense is associated with time reference such as past or present and mostly concerns the verb.

(10)a. ag wrɑ mægɛ́.

'I drink water'

b.ag   kɑ-wra   mægɛ́

1sg-S-I   kɑ-wrɑ-drink   O-3sg-ɛ-ACC

'I drank water'

The (10a) sentence in present and has no inflection. The (10b) sentence in past and requires an inflection (kɑ-). Agreement concerns whether the subject is a singular or plural.

(11) a. ab   a-waŋ   koorɑnɛ

3sg-S   M-PRE-play   O-3sg-nɛ-ACC

'He plays foot ball'.

b.annɛ   naŋ-waŋ   koora-nɛ

3PL-S   M-PRE-play   O-3sg-nɛ-ACC

'They play the foot ball'.

In the (11a) example where the subject is singular the verb has the inflection (a-); in the (11b) example where the subject is plural there is inflection (naŋ-). Sentences with tense and AGR are called finite clauses. For example:

a. John a-waŋ koorɑnɛ.

It is a finite clause in Daju because it contains the preffix a- to show both present tense and singular AGR. Sentences which do not have tense and agreement are called non-finite clauses. For example: (He considers) John to play foot ball Non-finite clauses such as John to play to foot ball appears only inside other clauses such as he considers'. To sum up, INFL is a separate and independent element in the sentence which comes between the subjects on NP. It can be finite or non-finite.

5.1.6 Binding Theory.

Binding theory deals with whether expression in the sentence may refer to the same entities as other expressions. One of the topics in traditional grammar was how pronouns related to their antecedents. As Cobbett puts 't''trace' 'Never write a personal pronoun without considering what noun it will, upon a reading of the sentence, be found to relate to' (Cobbett 1819) for example(12):

$$(12) \ a.John_t \ tor \ wan\partial ne_t$$

Binding theory is basically concerned with the same issue of how pronouns and other types of noun relate to each other but it extends the antecedent of pronoun relationship to other categories is a rigorous fashion. Binding theory is concerned with connections among noun phrases that have to do with such semantic properties as dependence of reference including the connection between a pronoun and its antecedent.take (12) example from Daju sentence:

(13) a. Peter   kabah   *ab*

        Referring   pronominal

     'Peter   Killed   him'

This implies that there is some entity to which Peter may be used to refer; the noun Peter relates a piece of language to a postulated piece of the world, hence it may be called a referring expression. To know who is being talked about means knowing which person called Peter is referred to from other information than that

contained in the sentence. The same applies to 'ab' known as a pronominal; another person is being talked about who is not mentioned; we have to deduce for ourselves who was *'kabah'*. But one thing is clear that Peter and *'ab'* do not refer to the same person. Some structured relationship or lack of relationship, between Peter and *'ab'* prevents them referring to the same entity. In the sentence:

> (14) a.Peter   kabah   *wanəne (amicini)*
>
>   *Referring*   *anaphora*
>
>   'Peter shot himself '

'amicini' refers to the same person as Peter.This information depends not on knowing who Peter is but on knowing the syntactic relationship between Peter and *amicini*, that is, on the internal structure of the sentence.

  Binding theory accounts for the differences in the interpretations of *Peter - ab* and *himself* how the speaker knows when two such expressions may refer to the same person and when they may not. It describes when different expressions may be co-indexed when *ap or amicini* may refer to the same person as Peter. One possible way of explaining Binding is to consider the class of word involved.

 Three word-classes are relevant:

> a. Referring expressions.
>
> b. Anaphors
>
> c. Pronominals

    Nouns such as Peter are classed as referring expressions in that their reference is necessarily to something in the discourse outside the sentence rather than to some other element in the sentence. The word '*wanəne*' refers to the class of anaphors. The word *'ab'* belongs to the class of pronominals.

  Pronominals do not have antecedent that are nouns within the same clause. The crucial difference between anaphors, pronominals and referring expressions is the area of the sentence within which they can be bound;(15)

(15) a. anaphors are bound within the clause.

   b. Pronominal may be bound by NPS in other clauses or be free to take their reference outside the sentence.

   c.referring expressions are always free.

For example this can be clearly in English sentencessuch as:(16)

   (16) a. *John* left after *he* found the car

      b. *He* left after *John* found the car

      c. After *he* found the car, *John* left

In (16a) *John* and *he* can easily be understood as referring to the same person. This contrasts with (16b), where *he* and *John* are presumed to be different people. One difference between (16a) and (16b) is the order of two noun phrases. In (16a) *John* precedes *he* and in (16b) *he* precedes *John*. But does linear order account for the difference? (16c) provides evidence that order cannot be the answer. In (16c) *he* precedes *John* and yet they can be interpreted as referring to the same individual. Even though the pronoun *he* precedes the noun phrase *John*; in both case, only in (16b) does *he* appear "higher" in the tree than *John*. Specifically, in (16b) the pronoun C (onstituent)-commands the noun, but in (16c) it does not. C-command is defined as follows in figure(5.13):
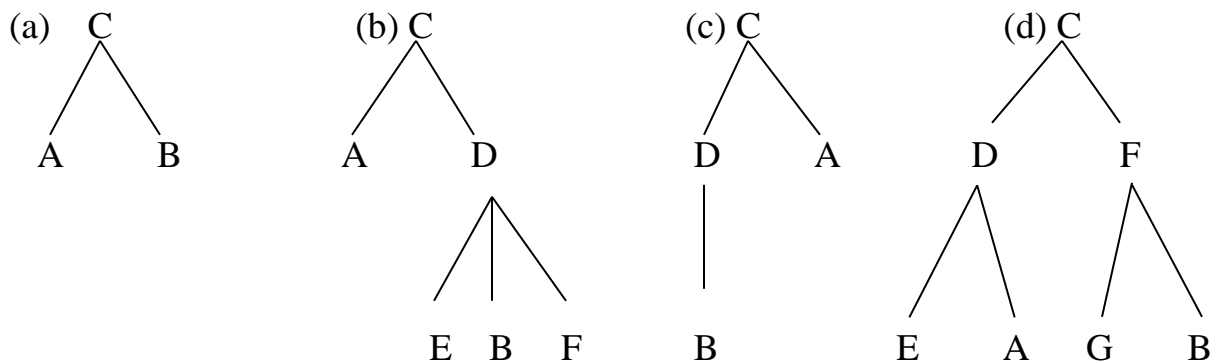
Figure (5.13) c-commands

A node A c-commands A node B if and oly if the first branching node that dominates A also dominates B. (proviso: A does not dominate B and vice versa.)

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Consider the trees in figure (5.13), in figure (5.13a) node A c-commands node B (and vice versa) since the first branching node dominating A, which is node C, also dominates B. In figure (5.13b) A c-commands B because the first branching node that dominates A (again C) also dominates B. but in this case B does not c-command A. why? Because the first branching node that dominates B is D, and D does not dominate A. In figure (5.13c) A and B bear the same c-command relation to each other as they do in figure (5.13a). the linear order is different, but that is what is important for c-command. C-command is a relationship between nodes that is structural in nature. Notice that in figure (5.13d) A, though it does precede B, does not c-command B. why? Because the first branching node dominating A, in this case D, does not also dominate B. It appears, then, that when a pronoun c-commands a nonpronoun noun phrase, as is the case with *he* and *John* in (16b), the speaker is understood as intending to refer to different individuals.

Figure (5.13) proved that Binding theory is chiefly concerned with giving more precisions to the area within which binding may or may not take place. It uses different concept called the local domain, of which the clause is one example. We can now sum up that the terms of the actual Binding principles are:

A. an anaphor is bound in a local domain.

B. a pronominal is free in a local domain.

C. a referring expression is free.

For example: Jane wanted [*the girl* to help *herself*]

Principle *A* applies because *'herself'* is an anaphor and therefore bound to *'the girl'* within the local domain of the embedded clause, not to the *Jane* in the main clause. Principle C also requires the referring expression *Jane* to refer to someone outside the sentence.

Finally Binding theory demonstrates that UG is not concerned with information specific to one language, say Daju or English, the Binding principles are formulated at a level of abstraction that may be used for any human language.

5.2 Syntactic Movement (WH-elements)

Movement plays an important role in Chomskyan theory and is employed to describe a number of constructions ranging from passives to questions. In English question words typically begin with the letters 'WH' i.e. who, where, what and so on, and therefore called wh-elements. A question may be formed by moving a wh-element to the front of the sentence. For example:

(17) John knows Bert.

       S   V   O

Suppose now that, although we know that John knows someone, we don't know who that person is. We might then ask the question:

(18) *Who* does John know?

     O   Aux S   V

Note here the wh-element *who* stands for the object of the verb. Objects in English usually follow the verb, as in (1), yet in the question (2) the wh-element occupies a position at the front of the sentence. We might therefore propose that forming the question involves moving the object wh-element from its position behind the verb to its interrogative position at the front of the sentence:

Who does John know------?

English wh-questions then involve movement; some element moves from its usual position to the front of the sentence. But not every movement obvious in one language is obvious in all. In Japanese for example the statement:

(19) Niwa-wa soko desu.

    Garden   here is

     'the garden is there '

Differs from the question:

(20) Niwa-wa   doko   desu ka?

Garden   where   is

'where is the garden?'

By adding the element *ka* at the end and having the question word *doko* in the place of *soko*. The question-word *doko* is not moved to the start, as must happen in English (except for echo questions such as you said what?). Japanese does not use syntactic movement for questions, thought it may need other types of movement.

Other languages also lack movement for questions. In Daju wh-elements such as illustrated:

(21) A. krem   how (many, much)

b. pɒhkɛ   when

c. d̪ɪrə   why

d. d̪ɪjærə   what

e. meneŋ   whose

f. menn   who

(22)   examples:

a. The Qu: what did John do?

b. the answer: John kasoga mɪrɪccɛ

'John made tea'

The word order in Daju is SVO in example (22) *John* serves as *subject*, *kasoga* serves as verb past-made while mɪrɪccɛ-tea serves as object thus the object in Daju precedes the verb. Let's see the movement of wh-element in Daju in (23):

(23)   a. *d̪ɪjæra* kasoka mɪrɪccɛ-----?

John ksɒgni mɪrɪccɛ
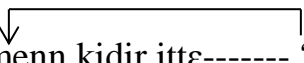
b.John kidir ittɛ

'John cut the tree'

menn kidir itt̞ɛ--̞----?

Who cut the tree?

In sentence (23a) ɗijæra is serves as object of the sentence which occupies a position at the front of the sentence in wh-element. This process involves movement of the interrogative wh-question from its position behind the verb to its position at the front of the verb. We might therefore propose that forming the question of Daju sentence involves moving the object wh-element from its position behind the verb to its interrogative position at the front of the sentence (23b):

(23b)   menn kidir itt̞ɛ------- ?

Wh-movement is thus a parameter that allows for two possibilities along which languages vary: the wh-phrase moves to the front of the sentence or it remains in its original position. Languages that do not contain wh-movement are referred to as wh-in-situ languages (Radford 2009). In the discussion of sentence structure representation, we will know the exact position at which the moved wh-phrase resides. Example (23) explores that Daju allows wh-elements in its sentences.

5.3 The Pro-drop parameter

The Pro-drop parameter sometimes called the null subject parameter' determines whether the subject of the clause can be suppressed. The concerns whether a language has declarative finite sentences without apparent subjects, known as null-subject or subject less sentences, hence it is also known as null-subject parameter.

  a. A starting point can be the Beat less line.

  b. I am the walrus.

In Italian it can be translated as a null subject sentence.

  a. Sonoil, tricheco

      'am the walrus'

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In English the null-subject counterpart is ungrammatical:

        a.'Am the walrw'.

A pro-drop language such as Daju can have finite null-subject declarative sentence; a non-pro-drop language such as English cannot. It is important to theories of language acquisition whether children learning English produce null-subject sentences and whether native speakers of Daju use them in English. In Daju it is also possible to say:

    (24) a.Wondang   wong

           V   O

       'falls the night'

       b. (ap)   k-an-or   ap

         ' I saw him'

       c. (Ongo)   k-on-or   ap

          'you saw him'

       d. (ap)   k-or   ap

          '(s)he saw him'

       e. (Aʃko)   ne-k-or-k   ap

            'we saw him'

       F.(K-onok)   ne-k-or-k ap

             'we saw him'

       h. (Onko)   ne-k-an-or ap

             'you saw him'

       g. (anne)   nɑŋ-k-or   ap

            'they saw him'

   All the subjects' pronouns between brackets are option you can droped subject and remain VO. English speakers cannot say: Falls the night. English declarative sentences have the order Subject-verb inversion is usually kept for questions. Daju

can have the order subject-Verb-object. some languages will null-subject sentences, such as Italian and Spanish permit Verb-Subject order, the languages that behave like English do not. Pro-drop is therefore a generalization about human languages, a parameter of UG on which they vary.

5.4 Empty Category

A division was made earlier between lexical categories such as Noun and Verb and non-lexical categories such as INFL(influction language). A further type of category needs to be introduced, the empty category. The symbol 'e' is used to represent an empty category in general. Pro-drop languages have declarative sentences without apparent subjects as in the Daju and the Italian.

(25)a. Sono di Torino   Italian

        am from Turin

         ' I am from Turin'

      b. Wuri mægɛ   Daju

         'drink water'

Principles and parameters theory treats such sentences as having an empty category in subject position, rather than having no subject at all, the basic assumption is that all sentences have subjects. These subjects may not be visible in pro drop languages; while the structure of the sentence requires a subject position, in pro-drop languages it may be filled by empty category. The D-Structure of the Daju or Italian sentence is then:

   a. Ø sono di Torino

   b. Ø wuri mage

'Ø" indicate zero element'; empty category does not appear on the surface of the sentence. Empty Category Principle An empty category must be properly governed. In pro-drop languages sentence may have a null subject; it follows that in these languages the empty category pro is properly governed. Finite INFL

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governs the subject therefore in pro-drop languages finite INFL must be a proper governor; it has that same properties as the lexical categories. The empty category of pro is 'licensed' by the AGR feature of INFL. Let us for the moment refer simply to AGR rather than INFL. In the D-Structure pro AGR *wuri mage* the AGR category must be a proper governor for the empty category 'pro'.

In non-pro-drop languages, a sentence may not have a null subject, the empty category 'pro' is not properly governed and so AGR is not a proper governor. English, D-Structure: Pro 'AGR speak'; Is ungrammatical became the AGR constituent cannot properly govern pro: it does not have lexical properties. So the language that has INFL as a proper governor will permit null subject (since the empty category pro is properly governed); a language that does not have INFL as a proper governor will not (as pro will not be properly governed).

(26) a.＿ ɓo!　　　　　come

    b.＿ ɗo!　　　　　go

    c.＿ priccɛ kaw ＿iisɛ

      '*the* boy hit *the* dog'

    d. ɗo ɗə ?

    'where are you going'

     e. əlow sogni

      'I'm going to the market'

    f. guna　　　　　　come here

    g. ɑ-ɑŋg-ɛŋ　Elzain

     name my　Elzain

     'my name *is* Elzain'

    h. ɑ-ɑŋg-ʌŋgə　mənə?

     Name-your　what

     'what is your name ?'

In (26a&b) there is subject missing but the verb understands from the speaker' while in(26c) there is article absent this indicate that Daju has no article preceds the nouns,in (26d-e-f) there something empty unknown, in (26g-h) there is verb to be missing indicate that Daju has no verb to be just the phrase understand through the context.

5.5 Summary of chapter five

X-bar theory is a theory that is suitable for any language, whatever in Daju language x-bar applies for phrasal category (e.g. VP, NP, PP, and AP) the out put is that the head preceds its complement, so Daju is the head left. Thus the head parameter in Daju phrase structure tree shows relationship among elements in a sentence such as: subject and direct object, also second improvement emphasize the head is in the left thus complement always follows the head.

WH-elements preceds the verb, when it serves as objective and it moves from declarative sentence to interrogative sentence. Daju has null-subject in pronomial sentence; indeed in yes/no question WH-elements put final; opposite to syntactic movement that put initial in the sentence.

CHAPTER SIX

6.0 Introduction

This chapter concentrated on the summaries of the study, recommendation, further reading, bibliography and appendixes.

6.1 Summary of the Study

The study was based on the typological and syntactic description of the Daju language in the area of Lagawa in South Kordofan State. The research was based on the description analysis of the Daju sentence, phrase structure and its classification. The first chapter deals with the Daju history and their language. The second chapter deals with some of the previous studies, which are divided into two parts; the first part deals with grammatical theories, especially the theories of universal generative grammar, supported by other theories and some examples of international languages; while the other part dealt with syntax. The third chapter deals with how to formulate the sentence and its order according to the vocabulary in terms of the constituent structure i.e. "Subject and predicate" and syntactic category, substitution classes and the functional. The linear and tree form has reached the possibility of applying the theory in nominal, verbal and prepositional phrase, hence sentence formulates in terms of semantic role. The fourth chapter deals with the word order, the composition of the sentence in terms of 'S-V-O' it comes out that the head of the phrase comes first; the noun precedes the adjective, the number comes last, adverbs comes after the verb, and demonstrative comes after the noun. The system of pronouns is similar to the English system, but the first person plural is two types: implicit and explicit. Chapter five introduces X-bar theory and its principles; therefore, the analysis concluded that the sentence in the Daju language is left, i.e. the head of the sentence is in the left.

6.2 Recommendation

1. Morphology of Daju as a whole needs discussion, because there are verbs and other elements need explanation hence it can not touch before.

2. Many speakers of Daju use Arabic words especially the kids, so it is importan to document stories in Daju language.

6.3 Suggestions for further reading

The classic work in word order typology is Greenberg (1963) (sometimes cited as Greenberg (1966), its apparently unrevised second edition). This work not only documents many of the patterns that correlate with the order of object and verb, but is often viewed as defining the beginning of the modern study of linguistic typology in general. Hawkins (1983) provides a detailed discussion of various aspects ofword order typology. Evidence supporting many of the claims made in this thesis is given in Dryer (1992). A wide variety of different explanations have been proposed, some in terms of syntax, some in terms of semantics, some in terms of sentence processing, some in terms of grammaticization, and even some in terms of phonology. In addition to the sources mentioned above, there are many references in the generative literature to a distinction between head-initial and head-final languages, which assumes an explanation for all or part of the correlations.

Dixon (1994), and Comrie (1981) for a very clear application to the Torres Strait Island language Kala Lagaw Ya. Foley and Van Valin (1984) is a central foundational work for the general approach to grammatical relations pursued here, which is extended to an extremely comprehensive typological study by Van Valin and LaPolla (1997), investigating an enormously diverse range of languages with extensive references to relevant descriptive and theoretical literature.

6.4 Glossary

Accusative case. The case in which the direct object is expressed. In some works this case is referred to as the objective case.

Accusative language. A language in which morphosyntactic rules identify A with S opposing SA (the subject) to P (the object).

Accusative system. A **system** of **inflection, adpositions, clitics**, etc. that identifies **S** with **A** opposing SA to **P**.

Absolutive case or agreement marker used for transitive objects and intransitive subjects in an ergative system

Accusative case marker used for primary objects

Adjuncts non-arguments; clausal dependents which are not selected by the verb, but which are added to the sentence to provide various kinds of information

Agent semantic role of the causer or initiator of an event

Agreement. The marking of the person, number and sometimes gender or class of arguments on the verb is usually referred to as agreement. The term implies agreement in person, number and gender or class between the marking on the verb for a particular argument and any noun phrase representing the same argument. This marking is always organised on the basis of grammatical relations and it is the subject whose properties are most often represented. In some languages the person and number of a possessor in a noun phrase is marked on the head noun, which encodes the possessed. Agreement is almost always of a type that has been called cross-referencing. In this type the pronominal marking can represent an argument and a noun phrase representing the subject or possessor or whatever relation is cross-referenced can be omitted. In a few languages such as English there is non-cross-referencing agreement where the noun phrase controlling the agreement cannot be omitted (compare *He runs* with *They run* where the sibilant inflection in *runs* agrees with a third-person-singular subject that cannot be omitted).

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Anaphora relationship between a pronoun or other pro-form (the anaphor) and the phrase that it is co-referential with (its antecedent)

Case a system in which the Grammatical Relation or semantic role of an NP is indicated by a marker on the NP itself

Complement dependent (non-head) constituent that is selected by the head of its phrase

Complementizer special word that introduces a complement clause

Constituent a group of words which functions as a unit, especially with respect to word order; in a tree, a string of words which is exhaustively dominated by a single node (see phrase structure) (ch. 3)

Dative case marker used for secondary objects, especially for goal or recipient Objects

Demonstrative *this, that*, etc.; see also determiner

Ditransitive a verb that takes two objects

Ergative a form (usually case or agreement) used for transitive subjects but not for intransitive subjects

Ergative system a system in which objects of transitive clauses are marked in the same way as subjects of intransitive clauses, while transitive subjects are marked differently

Exclusive a first person plural or dual that excludes the hearer

Experiencer semantic role of a participant who thinks, feels, or perceives something

Gender a system of noun classes determined by patterns of agreement

Genitive case marker used for possessors

Gloss a translation equivalent

Grammatical case case marking which indicates the Grammatical Relation of the NP

Head the most important word in a phrase; the word that determines the category and many other grammatical features of the whole phrase

Inclusive a first person plural or dual that includes the hearer

Instrument semantic role of an inanimate entity used by an agent to perform some action

Instrumental case marker used for instruments

Locative case marking for NPs that express location

Modifier adjunct, e.g. within a noun phrase

Nominative case marking used for grammatical subjects

Patient semantic role of the entity which is acted upon, affected, or created; or of which a state or change of state is predicated

Phrase a group of words that can function as a constituent within a simple clause

Phrase structure a representation of word order, constituent boundaries, and syntactic categories

Possessor agreement the marking of a possessed noun to indicate the person and number of the possessor

Recipient semantic role of a participant that receives or acquires ownership of something

Recursive rule a Phrase Structure rule which allows a mother node of some phrasal category to have a daughter of the same category

Recursive structure one constituent embedded within another constituent of the same category

Reflexive a pronoun that must (or may) take an antecedent which is an argument of its immediate clause, e.g. English *myself, himself*

Relative clause a clause that functions as a modifier within a noun phrase; in a restrictive relative clause the modifying clause determines the reference of the head

noun, whereas in a non-restrictive relative clause the reference of the head noun is assumed to be already known

Relativized function the Grammatical Relation that is assigned to the head noun of a relative clause construction within the modifying clause

Relativizer special type of complementizer that introduces the modifying clause in a relative clause construction

Split ergativity a situation in which both ergative and non-ergative case or agreement patterns are found in a single language

Terminal node nodes in a tree structure which do not dominate any other node; the lowest node on a particular branch

Terminal string the sequence of elements in the terminal nodes

Theme semantic role of an entity which undergoes a change of location or possession, or whose location is being specified

Transitive taking an object

Zero-anaphora omitting a pronoun where the reference can be understood in context

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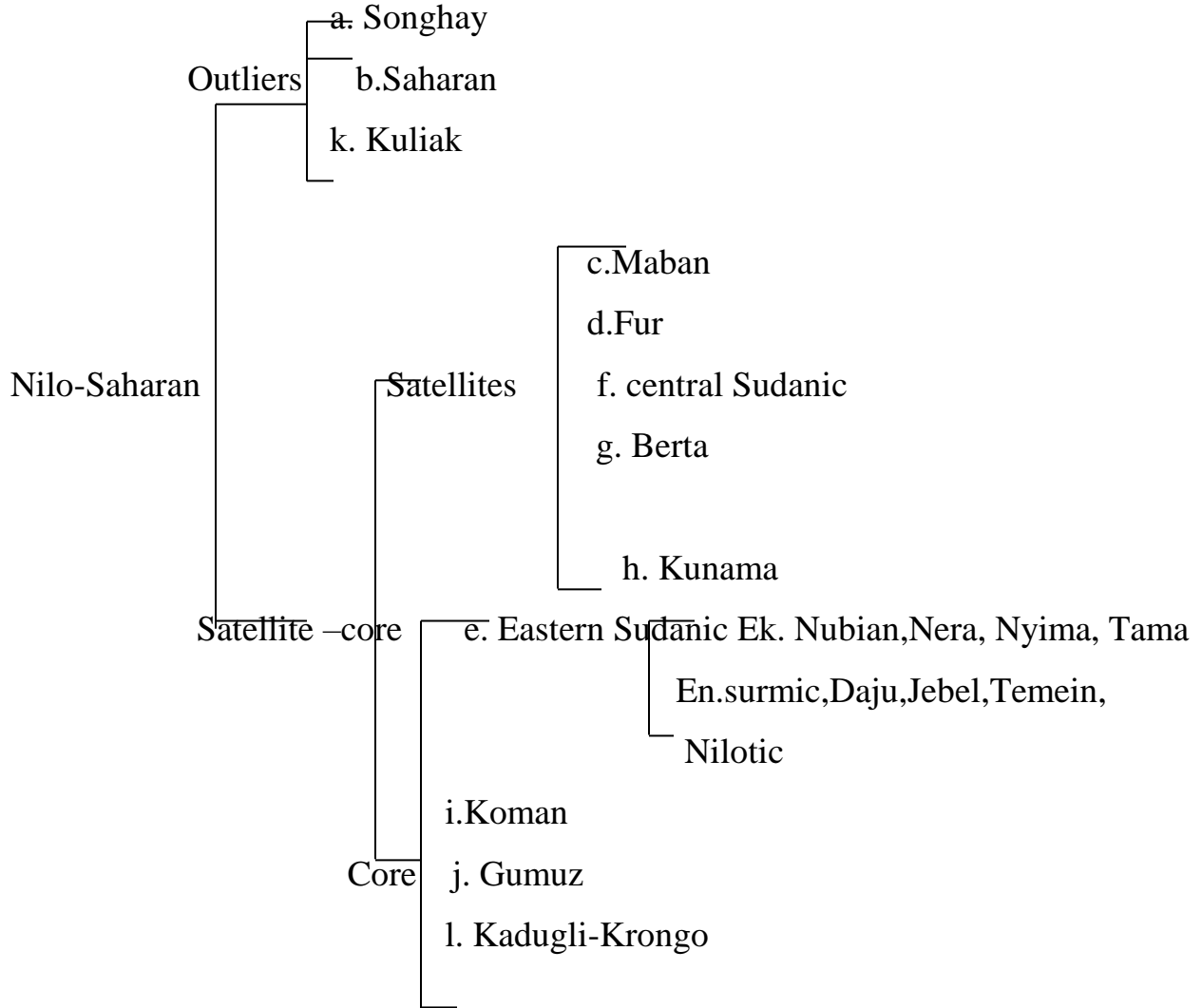   Amsterdam: John Benjamins.

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https://www.ethnologue.com/language/daj Population 80,000 (Bender 1983a).

6.6 Appendix

6.1 classification of Language

Table 2: Bender's (1996) Genetic classification of Nilo-Saharan.

a. Songhay
Outliers   b.Saharan
             k. Kuliak

                                    c.Maban
                                    d.Fur
Nilo-Saharan   Satellites   f. central Sudanic
                                    g. Berta

                                    h. Kunama
             Satellite –core   e. Eastern Sudanic Ek. Nubian,Nera, Nyima, Tama
                                                    En.surmic,Daju,Jebel,Temein,
                                                     Nilotic
                                i.Koman
                         Core   j. Gumuz
                                l. Kadugli-Krongo

6.2 Ehret's (2001:752), genetic classification of Nilo-Saharan

Nilo-Saharan

Koman   Sudanic

  Central Sudanic   Northern Sudanic

          Saharan   Sahelian

      Songhay   Fur   Eastern Sahelian

                  Maban   Eastern Sudanic

    Astaboran   Kir-Abbian   Kuliak

Nara   W-Astaboran   Jebel   Kir

    Nubian Tama   W-Jebel Bertha Nuba-M. Daju Suma-Nilotic

                          Temein Nyimang Surmic Nilotic
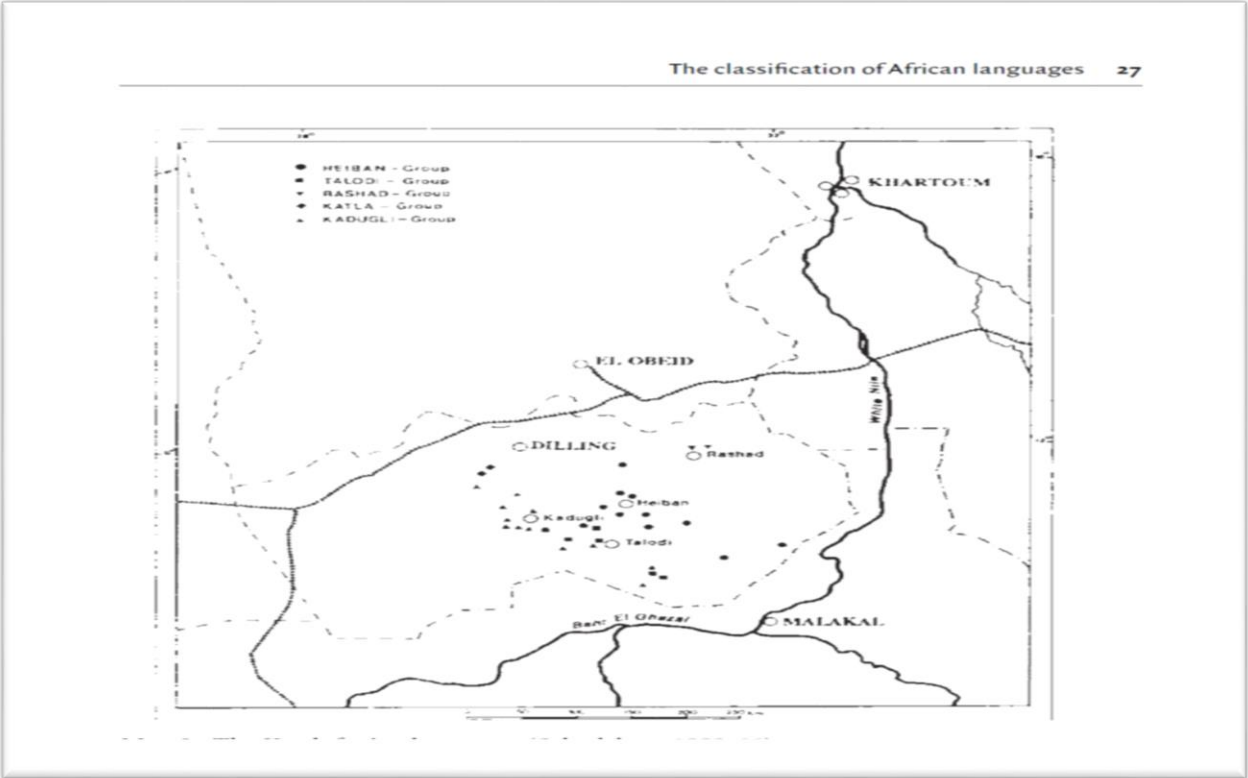
6.3 The Map of Daju Group.

Schadeberg, Thilo C. 1981e. The classification of the Kadugïi language group.

In Nilo-Saharan
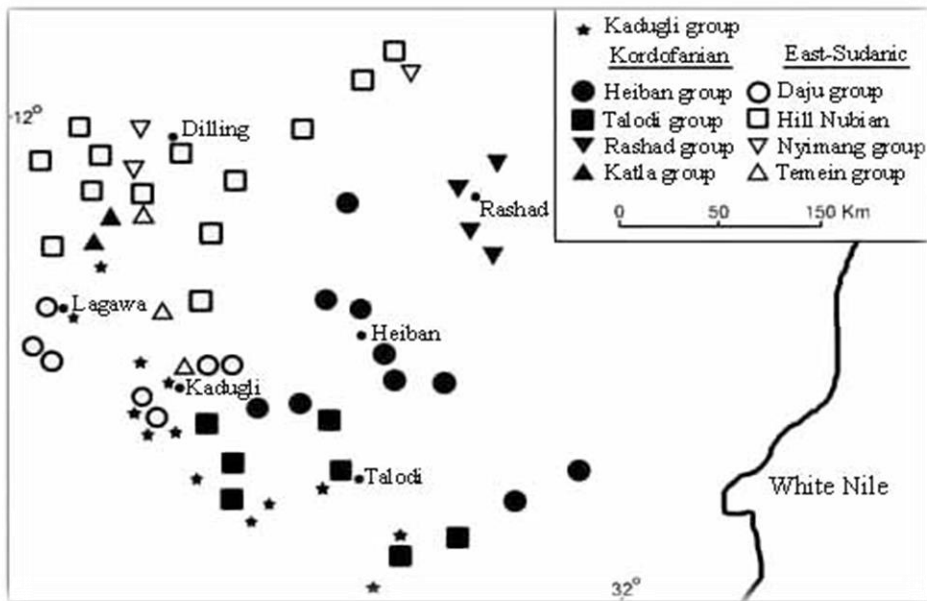
6.3 The map of Kordofanian languages -schadeberg1989

6.4 The distribution of the Nubian and Daju language groups