The Acquisition of Gikuyu Syntactic Structures by Gikuyu Children aged Between 3 and 5 Years.

by

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DECLARATION

THIS THESIS IS MY ORIGINAL
WORK AND IT HAS NOT BEEN PRESENTED
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Dedication

I dedicate this work to my son, Gacheru, and all those children learning their first language.

I am grateful to Nuhoko, Kitivi and Ningiwa for assistance in typing the work. I wish to thank Ndirango for proof-reading the work and for his constructive suggestions. I would also like to thank the children I worked with and their parents for their co-operation.

I am very grateful to my husband, Meangil for his support throughout the Masters course. Last, but not least, I wish to thank my son, Gacheru, for their patience.
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This study was carried out on the acquisition of Gikuyu syntax by Gikuyu children. These children were at a critical stage of speech development, that is, between three and five years. The study was prompted by the general observation of 'fluent' children of a tender age. The aim was to test this 'fluency' by conducting a field research.

This study is an attempt to describe the syntax of Gikuyu children between the age of 3 and 5 years. It gives a descriptive analysis of their sentences. The study looks into the rules and the level of complexity of the children's syntax.

The study was prompted by general observations of 'fluent' children aged 5 years or below. The question was, how 'fluent' are they? This could only be answered by looking at their syntax and analysing it.

The study was influenced by readings on child language learning, for example, that of Carol Chomsky (1969. Chomsky, (ibid), says that people assume that children have mastered the syntax of their first
language by the age of 5. In this work we wanted to find out whether it is just an assumption or a fact that children master syntax by age 5.

A field research was conducted on six Gikuyu children between the age of 3 and 5 years. The children's utterances were tested using interviews and the participant-observation method. These were recorded on tape and in writing. After analysing the data, it was evident that the children's syntax was complex. They used complex rules which can be found in the syntax of adult Gikuyu speakers. The analysis showed that the children had mastered the syntax of Gikuyu. They had learned and internalised the syntactic rules of Gikuyu. They used these rules in both experimental and spontaneous situations. Therefore, the children did not just seem 'fluent', they were fluent.
Chapter One

1.1 Introduction

The aim of this research was to study the syntactic structures found in the grammar of children aged between three and five years. Sentences constructed by children range from one-word sentences to several-words sentences. The assumption is that these sentences are not constructed haphazardly; they are rule governed. They also follow a systematic development that corresponds to the age of a child. Therefore, this research aimed at testing this assumption by observing children acquiring Gikuyu as their first language (LI).

Gikuyu is a Bantu language which is a sub-family of the Niger-Congo family of languages (Guthrie, 1969). Gikuyu is spoken in Kenya, in the area referred to administratively as the Central Province of Kenya. The language is spoken by an estimated population of about four million (Central Bureau of Statistics, March 1983).

1.2 Background Information

This study looked at the sentences in the grammar of six children aged between three and five years.
There were two children per each cohort, that is, three, four and five years. These children were selected from homes where Gikuyu is the language spoken in the house. Both parents of the research subjects were Agikuyu and spoke Gikuyu to the children. The other criterion was that where there were caretakers or other children, they also used Gikuyu.

The research was carried out in Kiambu district, in the Kiandutu and Makongo locations. These localities were found suitable because the predominant language is Gikuyu. Thus, the language acquisition of the children was least likely to be interfered with by the syntax of other languages.

1.3 Statement of The Problem

Chomsky observes that, "A common assumption among students of child language has been that the child has mastered the syntax of his native language by about age 5" (1969:1). Up to five years, a child is in a period of rapid progress in his language acquisition. Thus, there are observable changes in the child's degree of knowledge. For example: the length of his sentences; the complexity of these sentences; the lexicon; and morphemes. Krashen (1988) says that
in language acquisition a child progresses from the simple to complex structures. He first acquires and uses the simple structures such as one-word sentences and gradually progresses to infinite length sentences.

Some fundamental research questions that arise are on the relationship between the children's sentence-length and their complexity. For example, is there a relationship between sentential length and sentential complexity? Crystal says, "Two sentences may consist of exactly the same number of words, morphemes or syllables and yet be very different in terms of their complexity: 'I can see a cow, a cat and a dog' is much simpler than 'I see a cat that is next to a dog' though both are the same length." (1987:232)

Another question that arises is whether the children's constructions have features of complex sentences such as embedding or conjoining. Do these sentences have the obligatory elements? A simple sentence (S) is made up of a Noun Phrase (NP) plus a Verb Phrase (VP) as in,

\[
\text{I want milk} \\
\text{NP + VP}
\]

A complex sentence has other features which may
not be present in children's constructions, such as relative clauses as in

The man **who sat in the corner** is my brother.

relative clause

The question is whether such constructions can be found in the grammar of children between 3 and 5 years. What implications does the presence or absence of complex sentences have on acquisition? Does it mean that the child does not have mastery in the syntax of his LI?

The aim, therefore, of this research project was to find out the complexity of syntactic structures in the grammar of a child acquiring Gikuyu as his first language. The research problem can thus be stated as:

A description of the Gikuyu syntactic structures in the grammar of a Gikuyu child and the implications it has on the achievement of mastery in the syntax of his LI.

**1.4 Scope and Limitations**

Most of the studies conducted in child language
acquisition have dwelt on languages of Indo-European origin for example, English. This study looked at the acquisition of syntax in a Bantu language, Gikuyu. Syntax begins at the level of the word and develops to the level of a string of words or a sentence. Crystal (1987) among others, defines syntax as the study of the rules that explain how words are put together to form sentences in a language. Krashen (1988) says that children acquire syntax, rules of sentence formation, in a systematic order that progresses from simple to complex structures.

This study looked at syntactic constructions beyond the initial telegraphic speech. Telegraphic speech is characterised by one-word and two to three words sentences. However, the research does not deal with complete acquisition which implies acquisition of other features of language such as phonology and semantics.

The complexity of children's utterances was studied and judged according to the length of the sentences, occurrence of obligatory elements or absence of certain constructions and operations. Length was not the only criterion of complexity. The study also looked at the complexity of phrases due to their degree of modification; obscure vocabulary;
pronouns that would be difficult to interpret; and, the coherence of utterances as a whole. The coherence was recorded in sentences that had discontinuity, yet they were grammatical. Such sentences were considered coherent if the children did not lose track of what they wanted to say. The ideas had to be connected logically and be consistent.

Complexity was also determined on the basis of lexical items in the children's constructions. Some lexical items have complicated lexical requirements. Correct usage of such lexical items was noted and analysed.

There was no detailed comparison with adult grammar because the latter have complete acquisition not only of syntax but also of phonology and semantics. However, there was a broad reference to their grammar in instances where we had to explain why some constructions may not be acceptable. We also referred to the syntax of adults so as to establish the type of rules that are found in Gikuyu syntax. This was done by giving examples of each sentence-type as produced by an adult Gikuyu speaker (see chp.2). Adults have the ability to construct complex sentences for example with features of discontinuity and suspense. They also have complete semantic and
phonological interpretation. A child, on the other hand, may have the syntactic ability to construct sentences but lack complete phonological acquisition. Such a child cannot give a sentence its correct phonetic form but that does not mean he has not acquired the syntax. Acquisition of the components of language (syntax, phonology, semantics etc) is not simultaneous. This explains the situation mentioned above, whereby a child may have the correct sentence rules but not the phonemes as a whole.

There was a comparison between the sentences of the three years old and the five years old to see whether they differed in complexity.

1.5 Objectives and Hypotheses

(i) Objectives of the study

(a) To describe the syntactic structures of the children's constructions.
(b) To establish the syntactic rules that underlie the children's constructions.
(c) To test the critical age claim of acquiring mastery of the syntax of Gikuyu (LI) by the age of five.

(ii) Hypotheses of the study

(a) Children will acquire a mastery of the
syntax of Gikuyu (LI) by five years.

(b) Complexity of children's syntactic structures is evidence of their mastery of the syntax of Gikuyu (LI).

(c) The level of complexity of constructions will depend on the children's age.

1.6 Rationale of the study

No study on the acquisition of Gikuyu syntax by children has been conducted before. So, this research intends to fill in this gap on studies in child language acquisition. This study based on Gikuyu syntax will use its findings to confirm or refute the developmental sequence of acquisition theory which posits that acquisition of all languages follows the same procedure; from simple to complex structures. The findings can be used to make concrete and universal generalizations on child language acquisition.

The study will increase the existing data on child language acquisition by showing how early a child can master the syntax of his LI. It will also enhance our understanding of the complexities involved in child language acquisition.
1.7 Theoretical Framework

For the purpose of this study, two theoretical frameworks have been used. One theory explains the order of acquisition and the other one is used for the analysis of the syntactic structures.

Krashen (1973 and 1988) advances the theory of language acquisition in which he says. "Acquiring a language is picking it up ... developing the ability in a language by using it in natural communicative settings" (1988:18). Though Krashen uses this theory in reference to adult language learning, he states explicitly that it is the same theory that applies to child language learning. The process of language acquisition starts when a child is about one year old and it is complete at about the age of five (Krashen 1973). Krashen's theory makes a distinction between learning and acquiring a language. Learning is through conscious effort of the learner while acquisition is not. Krashen says that, "Language acquisition is a subconscious process, language acquirers are not usually aware of the fact that they are acquiring a language but they are aware of the fact that they are using the language for communication" (1987:10).
Thus, acquirers of a language need not have conscious awareness of the rules they possess in their construction of syntactic structures. By using language, children show that they have a tacit knowledge of the language they are exposed to.

In natural communications, the concern is with the message being conveyed and the understanding of the message by the hearer. The concern is not in the form of the utterance. So, a speaker may self-correct only on the basis of a feel for grammaticality.

A child acquires language in stages, and these have been defined by Krashen and Terrel in their natural order of hypothesis. A child progresses thus: "(1) Response by non verbal communication, (2) Response with a single word: yes, no, there... (3) Combinations of two or three words: paper on table, me no go...(4) Phrases: I want to stay. Where are you going?...(5) Sentences; and, finally (6) more complex discourse" (1988: 20). This natural order hypotheses corresponds to the age of a child so that a child's constructions become more complex as he grows older.

Acquisition is considered the basis for production ability and for it to take place the acquirer must comprehend the messages. This requires a conducive environment such as the use of language in
real life situations, or what Krashen calls natural communications.

Thus, Krashen's theory of language acquisition was used to explain why some syntactic structures are acquired before others. It was used to explain why there may be differences in the syntactic structures of a grammar of a three years old and those of a five years old.

Chomsky (1959 and 1965) posits the standard theory in generative transformational grammar. Transformational generative grammar expounds on a speaker-hearer's tacit knowledge of a language. Chomsky refers to this as competence. It also explains a speaker-hearer's use of language in concrete situations and this is referred to as performance. Observations on the speaker-hearer's performance are necessary for one to make conclusions on the competence.

The standard theory was used only as far as it was useful in the analysis of children's constructions. Bever et al say that the standard theory contains the following principles, "The structure of every sentence of a natural language must be stated in the form of an underlying phrase marker
representing its deep structure, from which semantic rules construct its interpretation; and a superficial phrase marker representing its syntactic structure from which phonological rules construct its phonological interpretations" (1972:2).

According to the standard theory, grammar consists of three components: The syntactic component, the semantic component and the phonological component. The syntactic component is composed of the Base and Transformational sub-components. The base consists of a set of rewrite rules which are context-free and a lexicon. The base rules, according to Chomsky "... define the system of grammatical relations and determine the ordering of elements in deep structure" (1965:123). He further says that, the lexicon is an unordered set of lexical items that "...state the general properties of all lexical entries, and therefore, make it unnecessary to provide feature specifications in lexical entries where these are not idiosyncratic" (ibid:168).

Chomsky says that the syntactic description of sentences has two aspects: the surface structure and the deep structure. Rules that express the relation of the deep and surface structures of a sentence are called grammatical transformations. Phrase markers
specify the structural relationship between the elements at any level in the structure of the sentence by means of a correlative concept. For example, a Verb (V) plus a Noun Phrase (NP) is a verb phrase (VP).

The syntactic description of a sentence should determine the sentence's semantic and phonetic interpretation. The deep structure of a sentence is the aspect of the syntactic description that determines its semantic interpretation while the surface structure determines the phonetic form.

Acquisition of grammar consists of developing innate schemata into grammatical rules that embody hypotheses about the unobservable deep structure of the language. The standard theory states that the objective reality of a language consists of a speaker-hearer's internalization of its grammatical rules. These rules enable a native speaker of a language to know which sequences of words give grammatical sentences. They also enable the speaker to combine words together to form sentences in the language. Such a speaker has a native speaker-hearer's intuition about the syntactic structures of the sentences in the language.
Thus, the standard theory was used to determine which sentences were well-formed or grammatical in the grammar of the children. It was used to describe the syntactic structures of the data collected. In so doing, it provided a representation of the linguistic knowledge underlying sentence production at an early stage of language development. It was also used to classify the data collected into various syntactic patterns, such as wh-questions, yes-no questions or negative constructions.

1.8 Literature Review

Empirical studies into how children acquire language started in the 18th century. They were conducted by parents and scholars who were interested in finding out how children learnt languages. Most of them were done through diary recordings of the children's utterances.

Most of the studies carried out have been on English or other Indo-European languages. Bowerman (1973) points out that most of the studies in the recent past were inspired by Chomsky's theory of language acquisition. Chomsky's observations led to the question of language universals and how they relate to all languages. Scholars wanted to know
whether all children acquire language in the same way regardless of the language to which they are exposed. The answer to this question has not been adequately dealt with for lack of cross-linguistic studies for comparative analysis.

The view of cross-linguistic studies to support the theory of universals of language has been supported by Clifton (1988) who says that, only those generalizations that are valid across the full range of cultures and linguistic diversity can contribute to the explanation of language acquisition. Studies should include languages with different structural properties so that findings can be used as a theory for acquisition of all languages, since the same procedures presumably apply to any language. Gikuyu is such a language. Gikuyu is not genealogically related to English or any other Indo-European language. It has different structural properties from English and other Indo-European languages. Therefore, this research would contribute useful material for comparative analysis in studying the theory of language acquisition.

Studies on the acquisition of African languages that are readily available are not many. They include those of Blount (1969) and Nyamasyo (1985). Blount
studied the acquisition of language by Luo children. His aim was to establish the grammatical relations of the constructions of children at an early stage of development. Blount's findings were limited by the fact that he had a language barrier. His research subjects spoke a different language from his, and he says they often had inhibitions. Due to this problem, he could not make sound conclusions on whether they knew some things or they just did not communicate them. From his research, it is obvious that a researcher has to be familiar with the subjects and knowledge of the target language is a big advantage. It is for this reason that we chose to work with the language that we are most familiar with - that is Gikuyu.

Nyamasyo (1985) studied the syntactic structures in the grammar of a four year old. Her research subject had a multi-lingual background (Luo, Kikamba and Kiswahili). Her aim was to find out which syntactic structures the child would acquire. She also tested the claim that by the age of five, children have mastered the syntax of their LI. She looked at the complexity of the syntax acquired, aspects of code-mixing and the occurrence of grammatical sentences. Though the subject came from a multilingual background, the research findings show
that he mastered the syntax of Kiswahili. Kiswahili was the predominant language acquired, while in Dholuo and Kikamba only lexical items were observed. This observation was attributed to the fact that Kiswahili was the language the child was exposed to most of the time.

Nyamasyo's study was relevant to this research in the methodology she used. As in her work, the methods for eliciting data were participant-observation and interviews. In the case of this study, the language focused on was Gikuyu, because the sample was taken from homes where Gikuyu is the main language. The sample was from homes where both parents are Agikuyu and they speak Gikuyu to their children. Also relevant to this study was her method of data analysis. For this study we also used the standard theory for analysis of structures.

The major difference between Nyamasyo's study and this study is in the objectives. Nyamasyo had set out to find out the language that would be mastered by a child from a multilingual background. In this study, we set out to find out the level of mastery of the syntax of a child from a monolingual background. This study went beyond Nyamasyo's by looking at the syntax acquired by children of different ages.
Bohannon and Leubecker (1988) explain the importance of exposure to a language in their claim that acquisition does not occur in a void. It does so within children's conversations with more mature language users. Such conversations are a primary source of linguistic data which children incorporate into their own speech. The exposure to a language must be supplemented with a social system which allows the child to interact with a structural language corpus. This has a bearing on the method of data collection. The data was collected in settings that allowed the children to interact using the Gikuyu language. For example, when they were performing tasks or playing games that required verbal communication.

Krashen (1988) raises the same view that acquisition is only achieved through meaningful interaction in the target language. In acquisition, the focus is on the message and not the form of the utterance. Voster (1988) says Chomsky and his contemporaries were dominated by the notion of a syntactic structure underlying the structure of sentence. This resulted in attempts to characterise children's language by means of generative grammars. Grammar is defined as a model of the linguistic abilities of a native speaker-hearer which enable him
to speak and understand his language fluently. These linguistic abilities are referred to as competence or the speaker-hearer's tacit knowledge of his language. The competence of a native speaker is manifest in his performance or use of his language in concrete situations. Therefore, this study looked at the performance of children so as to make conclusions on their competence. If they can perform in the syntax of Gikuyu, then it is evident that they have mastered that language's syntax. The linguistic abilities studied in particular languages, for example, Gikuyu can then be abstracted to other languages.

Grammatical competence subsumes three levels of linguistic ability; syntactic ability, semantic and phonological ability. This study focused on syntactic ability. Syntactic ability entails a speaker's ability to combine words together to make sentences in his language which must be grammatical. It also enables him to identify the grammatical sentences in his language. This syntactic ability was tested in the children. Did they have the ability to construct as well as comprehend sentences in their native language - Gikuyu?

Chomsky (1966) says that one of the characteristics of language is its creativity, which
enables a speaker to produce new utterances and they are understood by the speakers of the language. A child acquiring a language uses this creativity to form, interpret and pronounce a new set of utterances not heard before. The acquisition of language involves the learning of semantic, syntactic and phonological rules. Generative grammar specifies how a person acquiring a language forms, interprets and pronounces a given set of sentences. The grammar prescribes to a learner how to generate all and only well-formed or grammatical sentences. These sentences are infinite but they use a finite set of rules and are acquired within a finite period. An appropriate syntactic description rule should be assigned to the sentences concerned to account for the speaker's intuition about the structural relations between words in sentence. This is made possible by the knowledge of the syntactic rules of the language though such rules are not manifested consciously. Chomsky's theory was used to get the well-formed sentences and to give a syntactic description of these syntactic structures.

A child is endowed with the knowledge of the acceptable and unacceptable linguistic rules of language which vastly simplify the child's acquisition of language. He has to identify which words belong to
which categories in the target language and which categories can occur in which sentence positions. Chomsky says, "A child who is acquiring language has the task of constructing for himself a set of rules which characterise the language that surrounds him and enable him to use it both for speaking and understanding". (1969:7)

Chomsky (1980) describes language acquisition as a matter of growth and maturation of respectively fixed categories under appropriate external conditions. He puts emphasis on the competence of the speaker. Observations on the performance of a speaker make it possible for one to draw conclusions on the speaker's competence. Therefore, in order to determine a child's competence, an observer should study his performance, his abilities and comprehension in many different kinds of circumstances. Such observations give a variety of evidence of the child's linguistic competence at each stage of his development.

A child's competence goes beyond the presented primary linguistic data. For that reason, this study on Gikuyu children's syntactic structures went beyond the recording of texts to the tapping of the child's ability to comprehend sentences. In order to tap
ability, direct observations of children's spontaneous speech were supplemented with interviews. The aim of these interviews were to get those abilities that are not manifested overtly such as deviances, applying rules to new situations or repeating sentences that are well-formed.

Bowerman (1973) says that cross-linguistic studies would provide the basis for the claim of general principles of language acquisition. The data collected should be analysed to give a generative grammar which provides for the representation of information about structural meaning. Thus a study on the acquisition of Gikuyu syntax would not only show the syntactic structure of utterances but also confirm or refute the developmental sequence of language acquisition. Such a study has not been carried out before. It was for this reason that we embarked on this research. The findings will fill the gap by concentrating on a language other researchers have not dealt with in child language acquisition studies.

1.9 Research design

1.9.1 Area of Study

The study was conducted in the area surrounding Thika town which is in Kiambu district. The
predominant language in this area is Gikuyu which is the target language of the study. Children were selected from homes where Gikuyu is the language of both parents. No children were selected from the urban centre itself because of the influence of other languages since such an environment presupposes multilingualism of some measure. The study limited itself to Kiandutu and Makongo which are mainly populated by the Gikuyu speakers.

1.9.2. Target Group

Children selected for the study were between three and five years. The sample consisted of six children. The size of the sample was dictated by the time allocated for the research. A large sample would require a lot of time for adequate data collection. With a small sample it was possible to work intensively with each child. In this way, large samples of data were collected at frequent intervals. The age of the children was important since this is considered the period of rapid speech development. Krashen (1973) observes that by about the age of five, a child has acquired his first language. Most of the speech acquisition takes place between one and five years.
Parents were involved in the study. They played a big role of familiarising the children with the researcher. This helped a great deal because the children produced spontaneous speech with ease and cooperated during the interview sessions.

1.10 Research Methodology

1.10.1 Data elicitation and collection

Fairly casual and flexible interviews were conducted by the researcher on the children. These interviews were conducted in the children's homes and playgrounds. They lasted between one and two hours, depending on the age of the child. The three years old displayed shorter concentration spans than those of five years. During the interviews children were asked to perform tasks and play games that required language use. To get familiar with the children, we asked them questions on their background such as their parents' names, residence, their friends, playmates and the games they like most. These were followed up by the task-performing questions. All this was done in the house often with the aid of the parents. The game-playing interviews were carried out in playgrounds outside the house. The data elicited during these interviews were noted down.

During the interviews the children were asked
questions whose answers manifested their underlying knowledge of the syntactic structure in Gikuyu. The questions were on things that children encounter in their day to day activities such as food, clothes or toys. The construction patterns observed included yes-no questions, use of inflections, use of conjunctions, prepositions, formation of negatives and imperatives. For example, the children were asked to explain how they got to school, or where they placed their books after school to test whether they could use conjunctions, subordinators, etc correctly.

The interviews were supplemented with direct observations by the researcher. Interviews produced formal speech and to elicit spontaneous or casual speech the participant-observation method was used. This method enhanced the production of spontaneous speech because we were familiar with children's interests and activities. This was vital because questions that showed background knowledge of the child's interest elicited speech easily. Direct observations proved important because we could observe paralinguistic features such as facial expressions, head or eye movements and gestures, which often supplement speech or show comprehension.

In both the interview and observation sessions,
the children were not aware that they were being tested. Therefore, they were relaxed and they produced natural and reliable data. The data was collected over a period of three months.

1.10.2 Data analysis

After getting the data, the children's sentences were organised into the following: Interogatives (eg yes-no and wh-questions); Imperatives; Declaratives and Exclamatives.

The complexity of these sentences was determined by analysing their length. This was done through looking for features of complex sentences such as embedding, recursion, coordination and subordination. Other features of complexity that were considered were the degree of phrase modification, obscure vocabulary, use of pronouns and the coherence of the sentences as a whole.

The use of lexical items that have complicated lexical requirements was also noted where it occurred. Omission of obligatory elements and construction of grammatical or well-formed sentences were also noted.

A comparison was made between the syntactic
structures of the three years old and those of the five years old. This was done to test the natural order hypothesis of acquisition of structures.

1.10.3. Data presentation

The analysed data was tabulated in two different tables. One of the tables shows the percentage of each type of sentence found in the data, that is, the declaratives, interrogatives, imperatives and exclamatives. Each of these sentence types is portrayed against the three different cohorts. A similar table of percentages is provided for the different syntactic structures found in the data. That is, the simple and complex sentence structures. The complex structures have been presented according to the nature of linking so, there is a column for co-ordinated sentences and another for the subordinated ones.

A sample of the data has been used for analysis of the children's constructions. It appears according to the syntactic structure of the various sentences per cohort. This data is in the target language, that is, Gikuyu. Below each Gikuyu sentence, is an English translation. The translation is broad and not word-for-word (literal translation). Gikuyu is an
agglutinative language in which various affixes may be added to the stem of a word to add to its meaning or to show its grammatical function. Since English is not agglutinating, it would be difficult to provide literal translations. Literal translations have only been provided where a direct translation was found to be inadequate. The sentences are represented using the lexicon as provided by the base rules in the standard theory.
Chapter Two

2.1 Theoretical Considerations

In this Chapter, we look at the theoretical issues raised in this study. The Chapter also gives a general description of what was observed in the children's grammar.

The primary task of this study was to investigate the achievement of mastery in the syntax of Gikuyu by children. A person who has achieved mastery in a language has developed control or skill in the specific language. The word skill is defined as 'high experience', 'expertise' or 'practiced ability'(Oxford Dictionary). Skill implies that a child would be an expert in the application of rules of sentence formation. This expertise can only be achieved through practice. For example, in the formation of a sentence such as

1 I do not want milk.

Generative grammar posits that a sentence such as 1 above has undergone transformations. The assumption is that it would be derived from a basic (kernel) sentence, 'I want milk'. In order to get the negative sentence, a child would have to learn how to insert
the negator not. She would also have to know how to insert the operator do. It is only after the child has learnt how to apply these rules correctly that we can say that she has skills in the specific language.

Chomsky (1969) points out that a child should have the ability to construct for himself rules that enable him to speak and understand the language. According to Krashen and Terrel (1987), a person who has achieved mastery in a language is in an advanced stage of sentence formation. Such a person is at the level of structures that are considered complex in that language. Mastery is thus reflected in the complexity of a person's syntax.

In this work, the term complexity is used at two levels. These are at the level of acquisition and the sentence type. The first reference of complex is in relation to ease of acquisition. Structures which are not easy to acquire are considered complex. This reference is used by linguists such as Chomsky (1969), Fromkin and Rodman (1983) and Crystal (1987). Crystal (ibid), for example, says that there are stages which differ in complexity in the construction of negatives. He says that children first acquire the negatives not and no. They combine these negatives with other words to make telegraphic sentences such as No sit. By the
third year, the children can use the negative words within constructions such as *You no do that mummy. Later these negatives with the correct inflections are used more accurately as in You haven't got any.

In Crystals example, No sit is easier to acquire than You haven't got any. This means that the latter sentence is more complex. The complexity arises from the rules which are applied in the formation of a sentence such as 'You haven't got any'. These rules are referred to as complex rules in this work.

If we assume that 'No sit' is supposed to be 'I will not sit', then we can see that the child deleted obligatory structures, that is, the noun phrase I and the auxiliary will. The rules used to construct the negative sentence above involve the insertion of the negator before the verb sit. This is if we take the basic sentence to be 'I will sit'. However, the rules in 'You haven't got any' are more complex than those in 'No sit'. No constituent of the sentence has been deleted. The negator is placed accurately before the verb get. The non-assertive form any, which would not be used in the basic sentence, is accurately substituted in the negative construction.

Krashen and Terrel (1987) share the same view discussed above. In the natural - order of
acquisition, Krashen says that structures are acquired in a progressive order, that is, from simple to complex. In acquisition there is production of structures in stages with the simplest stage being non-verbal communication. The most complex stage is what he refers to as complex discourse. From his analysis of these stages (Chapter 1) we can infer that a person who is at the level of complex discourse has achieved mastery. This is because he uses complex rules to construct complex structures.

The second use of the term complex is as a sentence type as defined by Quirk et al. (1985). Complex sentences are a sub type of multiple sentences. They are made up of two or more clauses which are linked by subordinators. For example,

2 I can see a cat that is next to a dog.

The example above has the clause 'I can see a cat' and 'the cat is next to a dog'. The two clauses are linked by the subordinator that.

From the discussion so far, it can only be said that a child has mastered a language if he produced structures which are not easy to acquire. Such structures are determined on the basis of complex rules applied in their construction. So as to tackle mastery in full, we must define complexity more
explicitly by relating it to the children's language. This is what the rest of this Chapter does.

2.2 Complexity of Sentences

In this section complexity is defined in terms of; sentence structures, sentential length, sentence types, and lexical items.

2.2.1 Sentence structures

The children's sentences have been analysed into simple and multiple sentence structures. This division is as outlined by Quirk et al (1985). The classification was supposed to answer two fundamental questions raised in the problem statement. One of these questions was whether complex sentences were present in the syntax of children between 3 and 5 years of age. This was because complex sentences, as stated earlier, use complex rules of syntax and their presence would have implications on the achievement of mastery.

Secondly, the classification would solve the question on the correlation between sentential length and complexity. Krashen and Terrel's (1987) progressive order of acquisition implies that the
level of sentences is complex or quite advanced. The question that arose at the onset of our study was how the length of children's sentences was related to complexity.

The theory of progressive acquisition is in agreement with Chomsky's (1980) observation that language acquisition is a matter of maturation. This process of linguistic maturation is seen in terms of progression through a series of more or less discrete stages which represent closer approximation to adult grammar. The norm (measure) of full acquisition is therefore the formal grammar as spoken by the adults. Children are supposed to acquire the rules of the formal grammar in order to construct their sentences.

Quirk et al (1985) define a simple sentence as one that consists of only a single independent clause. However, the sentence may have a complicated phrase due to its degree of modification.

3. Nii nindaikara haha thi
   (Me I have sat on the floor) ¹
   I have sat on the floor'.

¹Literal translation, that is, a word for word translation. It will be given when deemed necessary for the correct interpretation of sentences.
3 above has a single clause which consists of NP Nii (I) and the Vp Ndaikara haha thi (have sat on the floor). The Vp in 3 above is complicated because of the modification by the adverb of place haha thi (on the floor). The sentence as a whole is still simple though it has a complicated phrase.

The term 'Simple', is also used in two different ways: one, as a sentence type (such as 3 above) as defined by Quirk et al (1985); two, it refers to structures which are easy to acquire, such as 'No sit' which has been discussed in 2.1.

Multiple sentences are either compound or complex. They consist of more than one clause linked by either co-ordination or subordination. The compound sentences have two or more clauses linked by coordinators. In Gikuyu the coordinators are na, no and kana (and, but and or respectively).

5. Nii ningunyua cai na ndie mugate.
I will take tea and eat bread.
The coordinated clauses in 5 above are ningunyua cai
(I will take tea) and ndie mugate (eat bread). There is deletion in the second clause 'ndie mugate'. The basic sentence would have been nii ndie mugate (I will eat bread). This deletion can illustrated by the spell-out rules in the phrase-marker below.

6 Phrase Marker 1

S.

S1

S2

Pron co-ord

Vp

Vp

Np

Np

V

V

Np

Np

V

V

Np

Np

Np

Np

V

V

Np

S.C 1 affix agreement

np + aff + vs + np + co-od + np + aff + vs + np

S.C. 2 Equi NP deletion

np + v + np + co-od + v + np

S.C 3 VP reduction

np + v + np + co-od + v + np
In phrase marker 6 we get the surface structure of S5 which is arrived at after the application of the structural change (S.C.) rules to the deep structure. In phrase-marker 6 above S2 has the Np Nii (I) but it is deleted as an equip Np so that we get the structure ndie mugate.

So 5 above is complex because of the rules applied in its construction. There is recursion of the basic sentence formation as shown in phrase maker 6 and the re-write rules below.

7. \[ S \rightarrow S1 + S2 \]
   \[ S1 \rightarrow Np1 + Vp1 \]
   \[ Vp1 \rightarrow Aff + Vp2 \]
   \[ Vp2 \rightarrow Np2 + Np + Co-od \]
   \[ S2 \rightarrow Npe + Vp3 \]
   \[ Vp3 \rightarrow Aff + Vp4 \]
   \[ Vp4 \rightarrow V + Np \]

In 7 above, NPe is used to mean that the noun phrase is deleted in the surface structure. The sentence is also complex because of the transformations which the basic sentence, as shown in 3, above undergoes to give S5.

In phase-marker 6, we talk of affix agreement because verbs are affixed (for modal, aspect, tense and number) in Gikuyu. The affix agrees with the
preceding noun phrase. For example, nii agrees with ningu because ningu is the marker of first person in the verb. If the preceding noun phrase had been plural ithui (we), the affix would have been nitu.

Another coordinated sentence is 8 below which is linked by no (but).

8. Turiaga nyama no tutiheaga cucu.
   We eat meat but we don't give grandmother.

In S8, the linked clauses are turiaga nyama and tutiheaga cucu. The rewrite rules for S8 are similar to those of 7 above. The phrase-marker is also similar to 6 above.

The last coordinator is kana (or) as in the sentence below

9. Tuthii na guku kana nakuria?
   We go this way or that way?

The rewrite rules of S9 and the phrase-marker are similar to those of S5. These similarities are because of the rules applied in compound sentence formation. The units linked are of the same rank and they form an equal (paratactic) arrangement. The recursive symbols s1 and s2 appear at the same level in the phrase-marker.
The complex sentence has a superordinate and subordinate clause. The subordinate clause functions as an element of the sentence. The two clauses are linked by subordinators and they form a hypotactic (underneath) arrangement. The clauses form a hierarchy in which the subordinate clause is a constituent of the sentence as a whole as in the sentence below

10. Mwarimu augire ati thukuru ni ikahingwo.

The teacher said that the school will close. The superordinate clause in 10 above is Mwarimu augire and the subordinate clause is thukuru ni ikahingwo. The subordinator is ati (that). The rewrite rules for S10 are

11. $S \rightarrow Np + Vp$
$Vp \rightarrow Aff + V + sub + S1$
$S1 \rightarrow Np1 + Vp1$

In the rewrite rules 11, the symbol $s$ recurs as an embedded sentence. This recursion explains why subordination is said to contract a hypotactic relationship. This is illustrated in the phrase-marker below
Length in this study has been determined by the number of words in a sentence. Krashen and Terrel (1987) say that beyond the two-three word sentences there is production of long sentences. The later stages of speech development, that is, sentences and complex discourse are far more complex than the earlier stages. A child may say the following sentence:
No milk

This is a negative sentence. It has the negative element no. If the child meant to say 'I do not want milk' or 'Do not give me milk' then milk is an object of either want or give. The sentence No milk is too rudimentary. It has no subject or verb. A child who utters such a sentence would have to acquire more syntax to enable him to construct a complete sentence with more syntax acquisition he may utter.

I do not want milk

In the example above, apart from indicating the noun phrase and the verb the child has learnt the rules of negation. He has acquired the other negator not. The operator do is also inserted by another rule. All these rules are based on the assumption that the child first learns the declarative which he then transforms into a negative.

The rules applied in the construction of 'I do not want milk' are more complex than those in 'no milk'. These examples illustrate that length could be a factor in determining sentential complexity.

As stated in Chapter one, our aim was to find out whether in the children's syntax sentential length was a measure for complexity. This would be tied up with
Krashen's theory of speech production by stages.

2.2.3 Sentence Types

The collected data is also discussed in terms of the basic sentence types. These are declarative, interrogative, imperative and exclamative. These types are as detailed out by Quirk et al (1985). The sentence types fell into the complexity grid in that the declarative is considered the basic sentence type. The other three types, interrogative, imperative and exclamative are derived from the declaratives.

Below are examples of sentences which have been constructed by an adult Gikuyu speaker. The rules applied in each sentence are given.

**Declaratives**

(i) Ni ndoka .

I have come.

This a simple sentence made up of a noun phrase ni (I) and a verb phrase ndoka (have come).

(ii) Ni ngoka ruciu wona ndona ihinda

I will come tomorrow if I get time.

This is a complex sentence made up of a matrix sentence ningoka ruciu (I will come tomorrow) and the embedded sentence wona ndona ihinda (if I get time).
Interrogatives

(i) Niugoka ruciu ?
Will you come tomorrow?

(ii) Gacheru niukundehera irio ?
Gacheru will you bring me food?

Interrogative (i) is formed by using a rising tone in a declarative. This is a rudimentary (simple) way of constructing interrogatives (Crystal 1987). The second interrogative makes use of an insertion rule together with the rising tone. In the statement form of interrogative (ii) would be Gacheru ndehera irio (Gacheru bring me food), the inserted lexical items are affixed to the verb. They are ni (will), u (you) and ku (tense).

Imperatives

(i) Gacheru thii toro.
Gacheru go to bed

(ii) Uma hau.
Get off that place

The two examples show that imperatives can be constructed using a subject and an infinitive as in imperative (i). They can also be constructed without a subject as in (ii).

Exclamatives

(i) Kai nigutukire ii!
(Hasn't it become dark!)
How dark it has become!

(ii) Haiya, kai wokira!
(Oh, have you woken up!)
Oh, you have woken up!

In the exclamatives given above, we find the use of a Q-word kai at the sentence-initial position, as in (i). The same exclamative has the exclamative ii at the final position. The insertion of those two lexical items transforms the declarative Nigutukire (It has become dark) into an exclamative. In the second example, there is the use of the exclamative word haiya (oh). This is a word which is only used to show surprise, shock or excitement.

In Gikuyu exclamatives - as will be illustrated later - are derived from declaratives. So the transformation rules of the standard theory have been adapted in this work to explain exclamative transformations.

An interrogative is derived from a declarative through transformation. For example,

15. Nitugathii gwa cucu mami?
Will we go to grandmother's, mother?

15 above is derived from the declarative given here below

16. Tugathii gwa cucu mami
We will go to grandmother's, mother.

The transformation of S15 to S16 involves the structural change which inserts the question-word ni (will). The prefix ni is inserted before the person-marker prefix tu in the verb. The transformation also involves a change in the tone contour. As illustrated, by example 15 and 16, the classification of data into basic sentence types enabled us to discuss the rules applied in the construction of each sentence type.

2.2.4 Lexical Items

Under the lexical items we looked at the verbs with complicated lexical requirements, use of pronouns and the occurrence of the emphatic do.

Verbs have various categorizations in terms of their inflections and characteristic sentence position. Some of the verbs in a language may be considered complicated because of their rules of application. For example, some verbs do not take a direct object such as kua (die) in the following example.

17. Uii ngi yakwa ni yakua

Oh my fly has died.

Though kua in 17 above may take an adverb such as kahora (slowly) or an adverb of place such as mukebeini (in the tin) it cannot take a direct object.
Children in the early stages of speech development are known to generalise many rules even in circumstances where the rules do not apply. Fromkin and Rodman (1983) are of the opinion that children who generalise rules are not ignorant. It is just that they have not yet learnt the more complex restrictive rules. So, by focusing our attention on the verbs we aimed at finding out if the children had acquired these complex restrictive rules, for example, for kua in 17 above.

We also looked at verbs which can take either a direct object or to + infinitive. An example of such a verb in the data was kwenda (want); for example, in

18. Mami nindirenda kuria

Mummy I want to eat.

In S18 the verb is kwenda while ku is to and ria the infinitive. In this sentence kwenda does not require an object to complete the sentence. The to + infinitive (kuria) can be used as the subject of a sentence, for example,


To eat is what I want/It is to eat that I want.

Ni kuria (to eat) in S19 is a focus construction in which the second Np in the sentence is fronted. This
is a stylistic device for emphasis.

However, the same verb, kwenda, requires an object in the following sentence

20. Mami nindirenda cai
    Mummy I want tea
    Np Np V Np
    (Object)

In S20, if the child did not add the object of the verb, the sentence would be ungrammatical. A construction without the object Mamii ninderenda (Mum I want) would automatically prompt the question ki (what?)

Therefore, in using verbs such as kwenda children would have to learn the grammatical relations the lexical items can enter into in a sentence. In S18, the rewrite rules are as follows,

21. S  \rightarrow  (VOC) + Np + Vp
    Vp  \rightarrow  Aff+ Vs + to + infinitive

On the other hand, the rules for S20 are

22. S  \rightarrow  Np + Vp
    Vp  \rightarrow  Aff + Vs + N

Another level of lexical complexity that was considered was the use of pronouns in ambiguous
sentences. For example, John knew that he was to win the race. The structure of the sentence permits the pronoun he two interpretations. In one interpretation it refers to John. On the other hand, it could refer to someone else taking part in the race.

In Gikuyu, where pronouns raised such a problem, reflexives were used. For example, the absence of a reflexive in the following sentence would have made the reference of we (he) ambiguous.

23. Mwangi ndoi tondu we mwene ndekumenyaga uria gaka gekiragwo. Mwangi does not know because he himself did not know how this thing should be put in.

23 above is a complex sentence. The lexical items we (he) mwene (himself) indicate that the pronoun we refers to the preceding noun phrase, Mwangi. The interpretation is determined by the presence of the reflexive mwene. In the absence of this reflexive the pronoun we would be ambiguous as in

24 Mwangi ndoi tondu we ndekumenyaga uria gaka gekiragwo. Mwangi does not know because he did not know how this thing should be put in.
In the example above, we could refer to Mwangi or another person who was supposed to fix something. Therefore, the use of the lexical item would indicate that the children knew that mwene (himself) would improve on the meaning of the sentence.

Lastly, in the list of lexical items we looked at the use of the emphatic do. This was in sentences where it was optional, that is, its absence would not have made the sentence ungrammatical. However, the presence of do transforms declaratives into emphatic sentences, for example in,

25. Tugikenaga muno twi gwa cucu.
We do rejoice a lot at our grandmother's place.

In the sentence above, -gi- (do) is being used for emphasis. If it were omitted, the resultant sentence 'Tukenaga muno twi gwa cucu' would be grammatical. The infix -gi- is inserted between the prefix marking person tu and the verb stem kena. The form of do is invariable with person and number.

With the theoretical considerations discussed so far in mind, we looked at the sentences the children constructed. Most of them have already been used as examples so far. The sentences collected were examined against the levels of complexity in the next
Chapter.

2.3 The language acquired

All the children observed in the study used Gikuyu. They used the language when talking to their parents, other family members and playmates. They constructed and interpreted sentences in experimental situations and still used those sentence spontaneously.

By using language in real-life situations, the children showed that they had knowledge of the rules that characterise the syntax of Gikuyu. Chomsky (1965) says that it is by observing a speaker's performance that one can make deductions on their competence. In this study, the children proved that they could perform in the language. For example, in the interview sessions they performed tasks and played games that required the use of language. These proved that they could understand the language and they used it to construct sentences.

The rest of the Chapter gives a general analysis of the sentences the children constructed.
2.4 Sentence structures in the children's grammar

In this report, the term structure was used to refer to the principle of sentence organization. The sentences observed were analysed into their constituents; the categories; and, the arrangements of the categories. For example,

26. Ni ndamihinga

I have closed it.

S26 can be discussed as consisting of two constituents. A noun phrase Nii (I) and verb phrase ndamifthinga (have closed it). The categories are ni - noun; da - person marker; mi - pron; and, hinga - verb. The arrangements of these categories is best illustrated in the phrase - marker below.

27 Phrase Marker 3

So from 27 above we have

\[ N + \text{Affix} + \text{Pron} + \text{Vs} \]
The affix agrees with the preceding noun. Tense is unmarked in the verb in S26. In the surface structure the pronoun mi (it) is between the affix nda and the verb stem hinga. The first noun in S26 nii is the subject of the sentence while the second one mi(it) is the object of the verb hinga. The rewrite rules for sentence 26 are shown below:

28. \( S \rightarrow Np + Vp \)

\( Vp \rightarrow Aff + Np + V \)

\( Np \rightarrow Pron. \)

After analysing the sentences into their various structures, we came up with two major sentence structures. These are the simple and multiple sentence structures which have been defined in 2.2. The simple sentence consist of one clause while the multiple one has got more than one clause.

From the data collected, six hundred sentences were recorded for the purpose of analysis. Out of these, 49.5% were simple structures while 50.5% were multiple structures. The percentage of each of these sentences varies, and it was tabulated as follows:
Table 1: Syntactic Structures.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Simple structures %</th>
<th>Multiple structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>53.6</td>
<td>5.6</td>
</tr>
<tr>
<td>4</td>
<td>52.2</td>
<td>7.7</td>
</tr>
<tr>
<td>5</td>
<td>43.0</td>
<td>51.1</td>
</tr>
</tbody>
</table>

Table 1 shows that the syntax of the three years old children was simple. They had the highest percentage of simple structures. They also had the lowest percentage of multiple structures. In comparison, the sentences of the five years old children were more complex. They had the highest percentage of multiple sentences and the lowest percentage of simple sentences. The implications of this distribution on the achievement of mastery of syntax are discussed in Chapter Four.

2.5 Sentence Types

The syntactic structures mentioned in 2.3 are analysed into four sentence types. These are declaratives, interrogatives, imperatives and
exclamatives. In 2.2 this analysis was introduced and it is based on Quirk et al (1985).

The declaratives are statements that have a subject which in most cases preceded the verb. For example,

29. Tata ningwenda cai
   Aunt I want tea

   Nii (I) is the subject of the sentence and it precedes the verb kwenda. Interrogatives are questions marked by positioning the Q-word at the initial sentence position.

30. Eku dadi wanyu?
    Where is your dad?

   In S30 the question word is eku (where). 'Where' can also be placed in a medial position as in

31. Tony athire ku tata?
    (Tony went where Aunt?)
    Aunt, where did Tony go?

   In S30 the Q-word, ku, comes after the verb thii (go). In the example below, the Q-word is in the final
32. Irio ciakwa ciiku?
   (Food mine is where) (Lit. trans)
   Where is my food?

Interrogatives are also constructed through permutation of structures, for example, in

33. Kanyamu gaka ni gake?
   (Thing this is his ?)
   Is this thing his?

33 above is derived from the declarative Gaka kanyamu ni gake. (This thing is his). This means that in the formation of the interrogative the noun is permuted to the initial position of the sentence. The phrase-marker for this example is

34. Phrase Marker 4

```
S
   |--- Np
     |   |--- N
     |   |--- Det
     |   |--- kanyamu
     |--- V
         |--- ni
     |--- np
         |--- gaka

S.C Permute NP
det + np + v + np
```
Lastly, interrogatives were constructed through the use of a rising tone in a sentence that would otherwise have been a declarative. For example,

35. Ngunengere clothe?
I give you all?

If the tone in 35 above had been as illustrated below, the sentence would have been interpreted as a declarative.

\[ \text{Ngunengere clothe} \]

Imperatives are subjunctive forms of sentences used to express commands, requests, suggestions, warnings etc. For example,

36. Akia thitima
Put on the lights

In S36 there is no overt grammatical subject. The subject can only be got from the context of the utterance. An example with a subject was

37. Mami rehe ibuku riu thome.
Mother bring that book I read.
The subject of S37 is mami (mum). Both verbs akia and rehe are bare infinitives and they are used as requests.

Exclamatives were constructed by introducing declarative sentences with interjections. An example is

38. Uui, gaki gakwa kombuka!
   Oh, my fly has flown off!

If the interjection uui was removed from 38 above, we would be left with a declarative. Exclamatives were also marked by the use of concessives. Concessives are words that signal the surprising nature of what is being said in view of what has been said before. An example of such an exclamative is

39. Tamaka ndinageithika
   Get shocked/surprised I did not respond to the greetings

Tamaka is concessive because it signals a surprising response. The child had just been told that someone had greeted her. It is shocking for one to say that they have not responded to greetings.
The distribution of the sentence types per each cohort is tabulated below,

Table 2: Sentence Types.

<table>
<thead>
<tr>
<th>Age years</th>
<th>Sentence types</th>
<th>Dec.</th>
<th>Int.</th>
<th>Exc.</th>
<th>Imp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td>59.0</td>
<td>29.5</td>
<td>9.3</td>
<td>2.2</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>65.7</td>
<td>23.8</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>76.3</td>
<td>14.3</td>
<td>6.6</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Decl.-declaratives, Int.-interrogatives, Exc.-exclamatives and Imp.-imperatives.

For all the cohorts, declaratives were the highest in comparison to the other sentence types. The other sentence types are low in percentage, may be because they are more complex. They involve transformations on the basic sentence type, the declarative. The implications of this distribution on the mastery of syntax are discussed in Chapter Four.

2.6 Use of Lexical Items

The children's knowledge of words, and grammatical relations of the words in sentences, was
analysed. For example, observations showed correct usage of verbs which can be transitive or intransitive, that is, the co-occurrence restrictions, for example in S40.

40 Ken nikuruga
   Ken is jumping

In 40 above, ruga (jump) is intransitive. It does not require an object for completion. However, the same verb is transitive in the following sentence

41 Nonguruga kuguru.
   (I will jump leg.)
   I will jump her leg

The verb ruga has taken the object kuguru (leg) in 41 above. Jump in Gikuyu is different from the English one which does not take a direct object. A sentence such as the literal translation of S41 would be considered ungrammatical in the English language.

Sentence 18 and 20, in the earlier part of the Chapter, also show the use of a verb with complicated lexical requirements.

18 Mami nindirenda kuria.
   Mum I want to eat.
20 Mami nindirenda cai.
Mum I want tea.

In S18 and S20, kwenda (want) is used with a finite verb and an infinite verb complement, respectively. In all these examples with verbs, the children applied correct syntactic rules. They seemed to know the grammatical relations the verbs could enter into in a sentence.

The children also had sentences with the emphatic do for example S25 given earlier on in the chapter and the example below

42 Ngi cikiumbukaga
The flies do fly.

S43 is emphatic because of the insertion of the emphatic do -ki-.

2.7 Other levels of complexity.

Most of sentences had complex phrases, either the noun or verb phrase. An example is

43 Nii na Nyokabi tuthiaga gwa cucu.
I and Nyokabi we go to our grandmother's place.

The cordination of nii na Nyokabi (I and Nyokabi) gives a compound noun phrase. Such a phrase
is complex, because it requires the verb to be in agreement with the compound subject. So the verb has the prefix tu marking the first person plural. Verb phrases were also complex as in.

44 Nii nindacora ngari nene muno
I have drawn a very big car.

The phrase nene muno (very big) is an adjective. It describes the car which has been drawn by the child. The addition of the adjective phrase is what makes S38 have a complicated verb phrase.

Nominalizations were also considered as a level of complexity. For example in

45 Mwandiko wa kahi gaku ni mwega?
(Writing of boy yours is bad?)
Your boy's writing is bad?

In S45 mwandiko (writing) is a noun. The writing is something which the boy possess. This is an example of nominalization of the verb andika (write).

2.7 Grammaticality and Acceptability

Grammaticality has been defined by Chomsky as a concept which "belongs to the study of competence."
A speaker - hearer is competent if he has the tacit knowledge of his language. In 2.1, we said that the formal grammar as spoken by adults is the norm of grammaticality. So, in this report sentences which conformed to the rules of Gikuyu adults' grammar were considered grammatical.

Some of the sentences in the data were labelled ungrammatical or unacceptab1e. For example

?46 Ningwandika kimundu kinene

I will write a big person.

S46 has the wrong verb. The child meant that he was going to draw (cora) therefore, andika (write) was a wrong choice. This wrong choice could have been caused by the similar sub-categorisation of andika and cora. The child seems not to have learnt the distinction between the two verbs. The wrong choice of a verb makes S46 unacceptab1e. However, the sentence is grammatical since it follows the correct rules of sentence formation.

One of the sentences, given here below, was considered both ungrammatical and unacceptab1e due to the wrong reapplication of a rule

*47. We niurutaga karamu ku?

(you you get pen where?)
Where do you get your pen from?

The prefix ni (you) should not be in the sentence. It causes reduplication of the person-marker prefix since u (you) also marks the second person singular. Instead of S47, we should have had

48. We urutaga karamu ku?

(You you get pen where?)

Where do you get your pen from?

or

49. Urutaga karamu ku?

Where do you get your pen from?

The only difference between S48 and S49 is the presence of the initial noun phrase we (you), which we said earlier in the Chapter is optional, since the verb has a person marker prefix. Either of the two sentences would have been correct.

Sentences with wrong phonetic articulation but correct syntactic rules were considered grammatical. This was because the primary task of this study was to look at syntax. As stated in Chapter one, the various components of grammar are not mastered simultaneously.

Acceptability has also been defined by Chomsky as "... a concept that belongs to the study of
performance." (1965:11) Performance is the use of language in concrete or real-life situations. Thus, acceptable sentences are those ones that are likely to be produced in concrete speech situations. In that respect, all sentences except the two examples 846 and 47, were acceptable.

All the levels of complexity discussed in this Chapter have been discussed in Chapter three and four. They were necessary in analysis of the structures observed in the children's grammar and for drawing conclusions on their acquisition and mastery of the syntactic structures of Gikuyu.
Chapter Three

In this Chapter, descriptive analysis of the recorded data is given. Sentences are illustrated using phrase-markers and rewrite rules as provided in the standard theory.

3.1 The syntactic structures

The grammatical syntactic structures are discussed in general by drawing examples from each of the cohorts. Each of the structures, that is, simple, compound and complex is discussed with examples. All this is done so as to illustrate the rules applied in the construction of the sentences. Gikuyu is an agglutinative language thus, for the purpose of the phrase-markers we have subdivided the words into affixes to represent the various lexical categories.

3.1.1 The simple sentence

The simple sentence consists of one clause. The phrases of such a sentence may be modified. In such a case, there is complexity at the level of the phrase and not the whole sentence, for example, in 1 below,

50. Ndahitha karamu rungu rwa giti
I hid pen under the chair
Though 50 above is a simple sentence it has complexity at the level of the verb phrase, *hitha karamu rungu rwa giti* (hid the pen under the chair). In 50 above there is post-modification within the noun phrase consisting of the object element, that is in *rungu rwa giti* (under the chair). This phrase is an adverbial modifying the object element *karamu* (pen). As indicated earlier, the sentence as a whole is not complex. It can be analysed as

```
Ndahitha karamu rungu rwa giti
NP V NP Adverbial
Od
```

*Od* denotes the direct object of the verb *hitha* (hide). The adverbial in this sentence is a prepositional phrase. The phrase marker for 50 above is 51 below.

51 Phrase Marker 5

```
S
  |
Np Vp
    |
      |
V  Np Pp
   |
pron  n  prep  np
  |
    |
nii  hitha karamu rungu rwa giti
```

This phrase marker shows that the sentence is
analysable into the two constituents of a simple sentence. These are the noun phrase and verb phrase.

40. Ken niararuga
   Ken is jumping

NP         VP

S40 above, also gives the same kind of simple sentence structure. For example, a sentence may contain an object as in:

52. Mami niarehe marigu
   Mother has brought bananas.

Marigu (bananas) is the direct object in 52 above. An S V O sentence, such as 52 above, can be negated. In negative transformations there are two stages of structural change involved. These are the use of the negator nda (not) and the tense affix na. This gives rise to a sentence such as 53 below

53. Ken ndanakuhe
   Ken did not give you.

In example 53, the VP ndanakuhe (did not give you) is made up of one word. This word has the prefix nda (not), the infix -na- (did) and the verb root kuhe (give). S53 was considered a sentence in the context of the utterance. The rest of the sentence was non-verbal, because the child was pointing at what he was talking about. The absent object of the verb he (give) in S53, was supplied in S57, which is given later on.
Some of the simple sentences had vocatives. The vocatives were nominal elements added to the sentence optionally to signal the one to whom it was addressed.

54. Mami nindirenda mai

Mummy I want water

(Voc) Np V Np

In 54 above, the vocative is mami (mummy) and it is in the initial sentence position. Vocatives also appeared in final positions as in

55. Ndimituire mata, tata?

I spit on it, aunt?

55 above, is uttered with a rising tone to form a question. If the sentence had a rising tone followed by a falling tone, the sentence would have been a declarative.

Some of the simple sentences had direct and indirect objects. (Od and Oi respectively).

56. Tata Mary tuhe cai.

Aunt Mary give us tea

NP V Oi ad

In sentence 57 below there are two objects.

57. Ken ndanakuhe ga - sausage

Ken not give you a sausage

NP neg aff V oi od.

\(^2\)Sausage - this is an instance of code mixing
Sentence 57 was constructed after prompting the child who had constructed sentence 53 to say what I had not been given.

The verbs in examples 50 to 57 are transitive. They can take objects. The verbs in the next two examples are copula or linking verbs.

58. Icio irio ni hiu
That food is hot

59. Cucu ee Kioni
Grandmother is at Kioni.

From the sentences discussed above, we can see that the children could use various types of verbs. In examples 58 and 59 the children used the verb be - ni or ee with a complement and with an adverbial
correctly.

In forming negatives the children displayed knowledge of rules limiting the scope of negation, for example 60 below.

60. Nii ndiriaga marigu.
   I do not eat bananas
   NP (neg) V NP

60 above was a statement made when one of the children was offered bananas. To test her further, she was asked, Ati we nduriaga? (So you don't eat?). The reply, which was a complex sentence, was

61. Aca, ndouga ndiriaga marigu.
   No, I just said that I don't eat bananas.

The sentence above illustrates that the child knew what came after the negative word ndi (not) was all negated. This means that the object of the verb ria (eat) was also negative.

There were observations of sentences with compound subjects as in S 43 which was given in Chapter two.