TO

MY BABUSHKA, THATHA,

AMMA AND APPA.

Some Aspects Of Syntax Of 4-5 Year Old Children:

A Descriptive Study In Hindi

By Miss Roopa Nagarajan

Reg No. 6

A Dissertation submitted in Part Fulfillment for the Degree of Master of Science (Speech and Hearing)

University of Mysore

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C E R T I F I C A T E

This is to certify that this dissertation titled “some Aspects of Syntax of 4-5 Year old children: A Descriptive Study in Hindi.” is the bonafide work in part of fulfillment for the degree of Master of Science (Speech and Hearing), carrying 100 marks of the student with register No.

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C E R T I F I C A T E

This is to certify that this dissertation titled “Some aspects of Syntax of 4-5 year old children: A Descriptive Study in Hindi” has been prepared under my super-vision and guidance.

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Chapter I

Introduction

Man spends much of his time speaking or listening. The process is so effortless that he is unaware of how he does it. A person who has mastered a language not only produces and comprehends it but in addition has some intuitions about it. These intuitions result from the knowledge of the rule system that are shared by all the speakers of that language (Chomsky, 1965).

A language is defined as the infinite set of grammatical sentences in a language (Chomsky 1957). Syntex is the body of rules which give us the way in which words are arranged to form sentences.

How does a child learns these rules? How does a child learn to understand and produce the sounds, words and sentences that the adults around his utter? These are some of the questions that have plagued linguists and psychologists. But why study language acquisition at all?

language acquisition studies have not only given us insight into the process of learning language, but have also helped us to understand cognitive development. Further, language acquisition studies have shown that regularities in inguistic

performance and acquisition of normal children provide a handy, ever available instrument against which retardation as well a deviance can be measured. Intact perceptive, integrative and cognitive apparatus are needed if normal age related linguistic structures are to be developed. With the help of language acquisition studies we may be above to pinpoint the area and level of disorder from which a deviant performances may arise. (Shapire and Kapiti, 1978).

Most of the research carried out in the area of acquisition of syntax has concentrated on children under the age of 5 years, dealing with the period of rapid progress and more readily observable changes in the child's degree of knowledge. (Braine, 1963; Brown and Belluge, 1964; Miller and Erwin, 1964; Klima and Bellugi, 1966; Bellugi, 1967; Brown, 1968; Menyuk, 1969, Brown and Hanlou , 1970; Moneill, 1970; Brown et al 1973; Ingram, 1972; Chapman and Miller, 1975; Devillers and Devillers, 1978).

"Work in generative grammar over the last decade has considerably extended our knowledge of the depth and nature of the complicities of grammatical structures, and has given rise to the suspicion that the child of 5 or 6 may still not

have mastered certain aspects of the structure of his language that the mature speaker takes for granted and commands quite readily". (Chomsky.C. 1969). Language acquisition continues beyond the age of five at a slower rate and more subtle manner. (Cromer, 1970 Chomsky 1969)

Studies in language development have extended to children who are linguistically deviant too. Such studies include children who have been deprived of environmental stimulation (Curtiss, 1977), Deaf children (Quigley et al 1977, Russel et al 1976), Children with cluttering (Tiger 1980) Dyslexic Childern (Vogel, 1975). Autistic Children (Shapire and Kapit. 1978).

These studies have indicated both qualitative and or quantitative differences between normal and linguistically deviant children. Knowledge of normal process of language development may help us diagnose early (eg. Dyslexic children may be identified before they start to read (Vogel, 1975) and prepare programs of therapy that approximate and follow the patterns of normal language acquisition.

In the western countries many tests have been developed to assess language development both in normals and in the deaf. There include the ITPA (Krik et al.1968). Developmental

sentence scoring (Lee, 1971) Test of Synterctic abilies (Quigley et al, 1978).

In India the need for a test for assessing language development has been felt by speech pathologists. At present only one test of language (Vijaylaxmi, 1970) is being developed. There are few studies in language acquisition. Thirumali (1970) has studied Tamil phonology in 4^{+} year old child . Srivatsva (1974) has reported study. of consonant articulation in Hindi. Tasnoon Banu (1977) studied the acquisition of articulation in Kannada. The relationship between articulation and discrimination in Kannada sounds in 4-8 year old children has been invest-tiged by Kumdhavalli (1973). Morphology in Kannada speaking children has been studied by subramanya (1978). Sridevi (1976) and Proma (1979) have both studied some aspects of syntax in 2^{+} year old children and in 5-6 year old Kannada speaking children. There are very few studies in language acquisition in Indian language. This area can be explored a great deal more.

In the present study some aspects of syntax negation, interrogation, coordination and pronomilization were invest-iged in 4 and 5 years old children. The four children

Sarika, Surbhi, Rajneesh and Amreesh, Belonged to Middle class familes residing in Mysore. There were one boy and one girl from each age group. The children are all native speakers of Hindi.

Speech samples from each of the four children were collected individually at their homes. About 3 hours of speech were collected from each child, (approximately one hour during each visit) within a period of 7 days. Spantaneous speech was supplemented with interview, storytelling, playing with toy animals. There sample were recorded on a cassette recorder and later transcribed in broad phonetic scription. The sample were then analyzed with respect to the four patterns under study. For analysis the frame work of Kachru (1968) was used. This is a Transformation grammarian approach to Hindi grammer.

Limitations of the Study:

1. Large number of children were not used in the study.
2. Children of different age group are not included.
3. This study involves mainly the productive of language.
4. As no attempt was made to elicit specific structures, the child's complete grammatical structure may not have manifested itself.
5. Only four aspects of syntax are studied.
6. The influence of Kannada and English on acquisition of Hindi has not been studied.

Implication:

1. Such a study would help to understand the development and use of language by normal children.
2. Description of normal language can be used to identify and diagnose children who are linguistically deviant or retarded.
3. It could also be helpful to plan therapy programmes for children. The transformational rules used by normal children can be used in therapy to teach different structures systematically.
4. Knowledge of normal development would help us to understand the regression and recovery in aphasics.
5. Evaluation and identification dyslexic children can be done early, as reading test can only be done after school age.

Chapter II

Review of literature:

2.0 “Language is the way people talk,
not the way people think they
ought to talk”.

Carpenter (1966)

For many years, the acquisition of language by children has fascinated psychologists and linguists. It was thought that a list of words sounds and sentences uttered by a child wuld be a good description of the child’s language. Though gross developmental changes were detachable in such investigations, they failed to indicate what the child knew about language or what he used while comprehending or producing language. Thus there was no description of how a child acquired language. In the past two decades investigators have become more interested in how the child learns language rather than what the child learns.

The child is an active participant in the acquisition of language. Language learning is not just the imitation of an adult model but is an insightful progressive discovery of grammatical structures by the child. This process of acquisition is dependent on the ability of the child to

perceive and organize, 1) the environment and 2) the language. that is a part of the environment, in addition the child must relate these two. (Naremone, (1978), Bloom (1970)).

To gain insight into the language of children, investigators have studied the phonological development, (Templin (1952), Tasneem Banu (1976)) Morphological development, (Steckol and Leonard, 1979), Subramanya (1977) and Syntatic development (Chomsky 1969, Menyuk 1971 etc.)

The general contention is that there are some commanalities in the proves of acquisition. These have been enumerated by Thirumalai (1977). They include the following.

1) The speed of acquisition of language is a bout the same in all children. 2) No child is taught language consciously by the parent, 3) The process of language acquisition is not affected by socio-economic level, culture or the complexity of the language, 4) the child is not always exposed to coharant language 5) though note learning and imitation do occur, there is much novelty and creativity in the utterences of the child, 6) There is a hierarchial process in languages development which is systematic and regular.

2.1 The approaches to language acquisition in children can be divided in to 3 view points (Mclaughlin, 1978)

1) Behaviorist approach, 2) Transformational grammarian approach 3) Process approach.

The behaviorist approach- was propogated by B.K. Skinner. In this approach language learning is a function of reinforcement. Language like any other behavior is learnt gradually and through selective reinforcement most errors will be corrected. The behaviourist view point has been severely criticized and discarded as being incapable of explaining the language acquisition process in its entirety.

The Transormational grammarian view point:

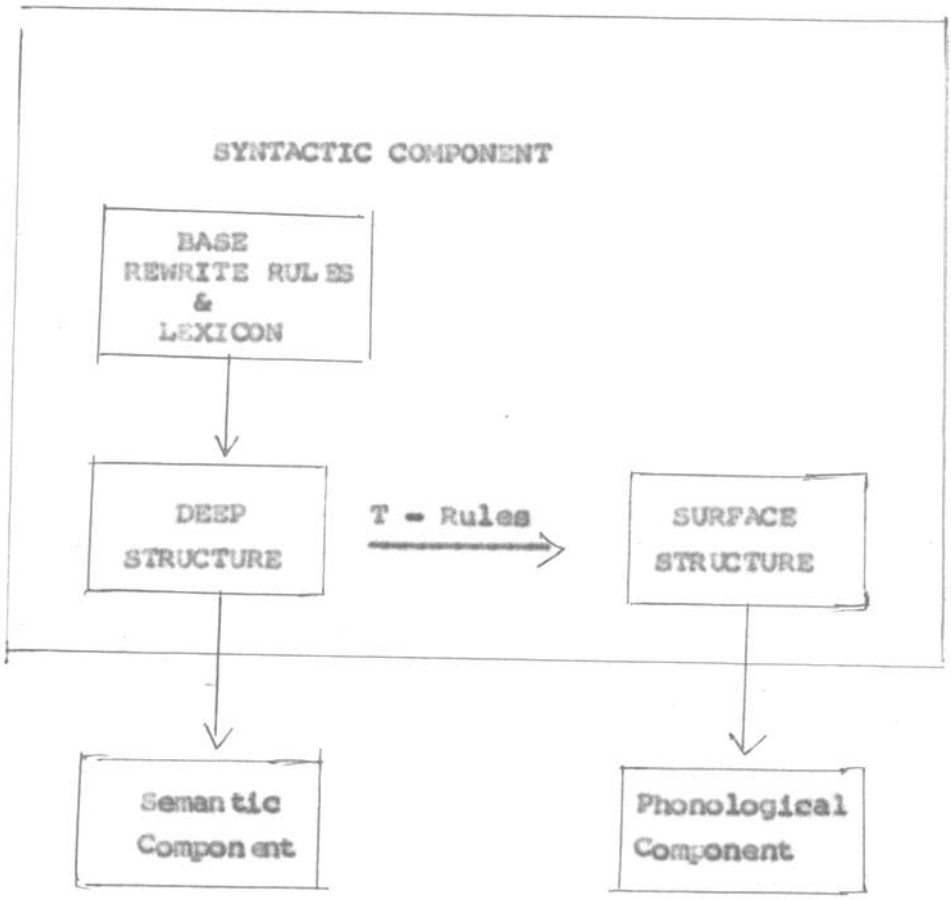
This approach which is propagated by Chomeky, notes that grammer of language in be thought of as a hierarchy. There is a base structure component, which produce deep structures. A set of transformations operate on the deep structures to produce the surface structures . In addition there are the semantic and the phonological components.

A transformation could involve any of the following four processes.

1) Addition – In this some element is added in the surface structure that is not there in the deep structure. But as the deep structure must have full meaning only words that are relatively empty in meaning are added transformationally.

Diagramatic Representation of the

Chomskian moder



Deletion:

Here some elements from the deep structure are deleted when the surface structure is derived.

Rearrangement:

Here there is a change in the ordering of the phrase markers at the surface structure in relation to the deep structure.

Substitution:

This involves replacing an element of the deep structure with another element in the surface structure.

According to transformational grammarians, language acquisition is a process of theory construction. The child proposes linguistic hypothesis, suggesting rules for sentences that he his learning. He makes predictions about the possible linguistic structures in the language to which he is exposed. He verifies these hypotheses against new sentences and modifies the hypotheses that are contrary to the hypotheses. The simplest of the hypothesis is selected a the best concerning the ruels underlying the sentences he has heard

and will hear.

Engel (1977) has pointed out that the TG approach may not be be most adequate system to explain language acquisition. His main points o criticism are that 1) Syntex is not all of language . 2) No language is said to begin after grammatical relations begin, the Childs communicative behavior before the age of 18 months is ignored. 3) Meaning is is discourse and not always in a sentence 4) Intention is ignored in the TG system, 5) Broader context o culture and environment is ignored.

Braine (1971) also argues that the language acquisition process is not based on hypothesis formation but on discovery procedures.

Process models:

The process model claims to overcome some of the inherent dificiencies of the TG and the behavioristic approaches. In this model, there is an attempt to delineate, how language is processed cognitively andhow it is manifested behaviorally. Clark and Haviland (1974) and Mc Laughlin (1978) recommend that this approach be taken to study language in children. However there is no processing

phenomena that can account for all relevant linguistic and behavioral phenomena as yet.

2.3 The acquisition and development of syntax:

Language: is defined as the infinite set of grammatical sentences. Grammar is a system of a finite set of rules that generate the infinite set of grammatical sentences and no ungrammatical ones.

Investigations in the development of language have included children till 13 years of age. Some studies have included many aspects of syntax, while others have restricted themselves to few aspects. McNeill (1970) and Brown et al. (1973) both indicated that the period from 18 months to 4 years is the most active period for language acquisition, and distinct levels in language development can be made out. After the age of five the rate of acquisition decreases markedly and differences between adult and child speech is not so obvious. The immaturity of a child’s language after the age of five is revealed only if an depth analysis of the language structure is done. (Chomsky, 1969).

Studies in acquisition of language have tried to

answers the following question.

1) What forms does the child use to express various meanings at different stages of development?
2) What is the relationship between comprehension and production?
3) Why are some forms understood or produced before others?

Studies in language acquisition have involved children using even one word utterance. Such studies have revealed that single word utterances are used to indicate imperation, declaration and interrogation rather than to name objects. The articulation as this stage may be standared, distorted or entirely different. Another observation is that the child may have long garbled utterences with no or few lexical items but with stress and intonation. Single item utterances may also occur indepen-dently. So as the child grows there is an overlap of old structures and new structures. This overlap can be found in all stages (Menyuk 1969).

In the stage of two or three word utterances the fuction words, Copulas, articles are often left out. Brown and Bellug if (1964) explain this deletion of function

words as due to the lack o stress on these words, when children hear sentences.

Shipley, smith and Gleitman (1969), compared the responses of children between the ages of 15 to 30 months. The children were divided into two groups – the less advanced group (who produced one word sentences) and the more advanced group (Primarily two word spontaneous speech group). The children's responses which included N, VN, telegraph,

imperative, and also utterances that had non-sense forms of the NV etc. were noted. The more advanced group responded most often to grammatical imperative sentence. The less advanced group responded most often to the word in isolation (especially when noun was stressed) and when telegraph utterances were said with each word stressed separately. It is possible that children and adults use different devices to differentiate sentence types.

The data obtained by Shiply, Smith and Gleitman (1969) also indicate that comprehension does not proceed production, at least in the less advanced ages. The less advanced responded most often to single word commands. They were also producing single word utterances. On the other hand the more advanced group, understood complete

grammatical utterances, while producing only two word utterances. There may be stages where comprehension may proceed production (Menyuk, 1971). Studies like these have led some psycholinguistic to wonder if the grammar for production and comprehension is the same? Is the grammar for the listener and the speaker and same?

Chapman and Miller (1975) used word order in children who used two three word utterances to test the order of emergence of production and comprehension. There were three groups of children. The average MLV of each group was 1.8, 2.4 and 2.9 morphemes. in each group there were 5 children. The investigations reported that in the object manipulation framework production proceeded comprehension. The age range of the subjects has not been mentioned.

Apart from comprehension and production, another area that has been subjected to much debate has been the differences between males and females in language acquisition. As early as 1954 Macarthy reported that one of the consistent findings that emerged from language development studies was that there was a slight difference in favour of girls in pronunciation, mean length of sentence, vocabulary,

of language disorders. More recently Maculay (1978) in a very critical essay on female superiority in language acquisition noted that the “exidences of consistent sex differences in language development is too tenuous and self contradictory to justify any claims that are sex in enperior to the other.” Therefore, this is another aspect that should be looked into more carefully, and objectively.

In the recent years a number of studies have used the transformational generative paradigm to explain the syntactic developemnent in children. Ingram (1972) described the phrase structure rules in language learning in 15 children who used sentences 2 to 3 words in length. The age of the children ranged from 1.17 to 3.0 years. He out lined 5 staged in the development of structures from the corpus that he had collected.

The stage I was represented by

(i) S_1 -> (NP_1)(VP)

(ii) Vp -> VB (NP_2)

(iii) NP -> (S_3) N

(ii) NP2 occurs only if in S_1 => VP

(iii)NP -> (S_3) N, S_3 occurs only if S_1 -> NP

In the stage II appears a consistent use of models

and negatives, and the appearance of NP_3

(i) S_1 -> (NP_1) (T) (VP)

(ii) VP -> VB (NP_2)(NP_3)

(iii) NP -> (S_3)N

In (ii) the condition is that
VP -> VB (NP_2) (NP_6), NP_3) occurs only if S1 -> VP
In (i) (T) only occurs if
S_1 -> NP
VP

Stage III – the VP I obligatory and complement

structure appear but without the NP_2

(i) S_1 ->(NP_1) (T) VP
(ii) VP-> VB [V (NP_2)(NP_3)]
(iii) NP -> (S_3)N
In the VP thre is an ambedded sentence
Stage IV (i) S_1 -> NP_1 (T) (VP)
(ii)VP -> VB (NP_2) { (S_2) }
NP_3

(iii)NP -> (S_3) N

The subject is now obligatory, and a pronoun or noun appears in this position.

Complement S_2 is similar to the adult system.

Stage V (i) S_1 -> NP_1 (T) VP

(ii) VP -> VB (NP_2) ({S_2 NP_3})

(iii) NP ->{ S_3 N N S_U}

In this stage the relative clauses appear.

The general approach taken by the transformational grammarians is that the corpus of sentences that is collected from different ages, is subjected to analysis. The analysis is in terms of a set of grammatical rules that describe the language sample . Comparison with adult forms is also been done. Many studies have been done on the above lines.

Menyuk (1963,1964,1968,1969) did an extensive study on the language of children between the ages of 2-7 years. About 80- 120 sentences were collected from each child. Then a grammar was written to describe the sentences used by these children. Though all the children showed the transformation used by adults, the nursery and the 1st grade children did not complete development of the following

structures, 1) auxillary ‘havce”, 2) nominalization, 3)Pronomilization and 4) conjunctions ‘with’, ‘if’ and ‘so. About 17 restricted operation which were used by children were not present in adult speech.

In a similar study O’Donnel (1967) studied oral and written language of 5-14 year old children. The analysis was on the basis of the terminal units (T units). Simple and complex sentences were defined as T unit but a compound sentence was analysed in the smaller T units of which it was composed.

With increase in age there was an increae in the length of T units. From KG to 7^{th} grade, the length of T units increased from 7 words to about 10 words. Two periods between KG and 1^{st} grade, 5^{th} and 7^{th} grade showed spurts of development. In these stages there were large increases in new grammatical constructions, sudden increases in the use of constructions previously used at low frequencies and high error rates on some kinds of constructions. In both the periods there was an marked increase in nominal, adverbial and coordinate constructions. Nominals with adjectives and prepositional phrases increased especially

between 5th and 7th grade. More research can be done to investigate the process that take place during these phases of development. It could be that if some structures are being acquired at this stage, then they could affect and disturb the structures that the child had learned earlier. Language is an integrated system in which a change in one cannot but affect other structures within the system." (Palermo and Molfese, 1972).

A study which dealt with the acquisition of language after the age of 5 was done by Carol Chomsky (1969).She studied 40 children studying between KG and 4th grade. Comprehension was tested on 4 structures. No semantic or contextual cues were given. The 4 Structures that were tested were: 1) ask/tell 2) Promise/tell, 3) easy to see 4)Pronomilization. The structures 1 and 2 were acquired between the ages of 5, 6 to 9 years, and there was a lot of individual differences. Structure 3 was still imperfectly learned by some children till the age of 10. While structure 4 was acquired by the age of 5.6.

Much work on language acquisition after the age of 5 years has only been done recently. Karmiloff Smith (1979)

reported dthat it is not ony the complex structures tht develop after the ge of five. Some other aspects of language like tagging of genral principles with rules for exception, the progressive passage from coordination to sub-ordination, avoidance of redundant marking etc., are acquired completely only after the age of five. Many of these above processes are affected by cognitive development.

2.4 Development of Specific transformations

Negation:

If a negative morpheme is present in the deep structure of a sentence then by a series of transformations the sentence will be reliazed as a negative sentence. In English, not n't and word negative like nobody and nothing negative determines no are same types of negative members. In Hindi the negative marker nahi is usually realized at the preverbal position. Apart from nahi, mat, na and word negative like bina etc., are also negative markers.

Acquisition of Negation:

Klima and Bellugi (1966) indicated that the process of acquisition of negation goes through 3 stages. In the first stage the children simply place a negative element in

front of the nucleus sentence. This can be represented as

no - Nulceus of Nucleus – No.

Not

Stage II is charecteried by the inclusion of negation within the sentence either as ‘no or not’ and with a few models.

This stage can be represented as

S-> NP – (neg) – VP

no

neg-> Not

V neg

Vneg -> can’t

don’t

In the final stage most aspects of verb phrase negation have been mastered, though not indefinite negation.

S -> NP - Aux – VP

Aux-> T - V^{Aux} - (Neg)

V^{Aux} -> do

can

will

be

Where ‘be’ is restricted to predicate and progressive and is optional ‘can’ and ‘do’ are restricted to non progressive main verbs. Menyuk (1969) has also studied negation and reported that the stages of development are similar to those reported by Klima and Bellugi (1966).

Bloom (1970) noted that though negation may be expressed similary in stage of syntactic expression each stage my have difference in the stages of acquisition. There are 3 different types of negation.

(1) Non existence:- here the object of reference no longer exists.

(2) Rejection: - here some apart of the environment is rejected

(3) Denial:- the child here denies something that is

(4) asserted.

The order of appearance of the 3 type of negation are the same as given above, i.e Monesitence, Rejection and Denial.

Another approach to describe the development of negation was given by Wode (1977). He commented on the Bloom (1970) and Klima and Bellugi (1966) model nothing that these descriptions of acquisition of negation were not applicable to all languages. He proposed 4 early stages in the development of negation in German, the four stages are: Stage I, one word negation eg. ‘no’. Stage II (a) anaphoric, nein is used for adult nicht. Stage III, Intrasentensial negation where IIb nonanaphric moves from sentence Initial to sentence medial position and is replaced by adult nicht. Though it may not be always used in the adult manner. Stage IV, the child has learnt the correct or adult position of nicht.

Wode (1977) claims that this can be applied across cultures. Wode (1977) had very few negative sentences in the carpus he had collected. He has also not mentioned how large the original sample was and in total how many negative sentence he collected (park, 1979) wode (1977) had collected data from High German and Swiss German. Park (1979) reported that in these languages, the development of negation may be different from the stages reported by Wode (1977). Therefore Wode (1977) theory of acquisi-

tion of negation is questioned.

Quigley et al (1974) reported that by the age of 8 almost all aspects of negation are acquired, and they are stabilized by the age of 10. Their test was based on Klima and Bellugi's (1966) model of negation acquisition. They tested normal children between the ages of 8 and 10. It is possible that negation may be acquired at younger ages. That is yet to be investigated.

In Kannada, Sridevei (1976) and Prema (1979) have studied negation. Sridevi (1976) noted that 11, iii and be: d were the negative morpehems acquired earlier to other morpehemes waith modal auxillaries. She also noted that negative transformations are acquired before other transformations. Prema (1979) reported that the structure of the negative sentences in 5-6 year old Kannada speaking children is similar to the adult form. Negatives particles like illa, alla and beda are used in adult fashion, but bound form are very few.

4.2 Interrogation:

There are 3 main types of Interrogative questions,

1)Yes/no, 2) wh 3) Tag. In English Yes/no questions are generated by transformation that inverse the order of auxillary and subject NP. (Dale 1972), Jacob and Rosenbaum (1968). To generate wh questions in addition to the Interrogative transformation there is an additional wh tdransformation that replaces the question constituent with a NP in which the noun carries the feature (+wh). In tag questions the speaker supposes that the statement is true and expects the hearer to confirm it or in other words tag questions always involve assertion (Rajaram, 1974).

In Hindi Yes-no questions are generated either by attaching a kva particle sentence intitially or by a rice in intoration at the end of the sentence. Wh questions like kva k n kvo etc., are generated by the combination o the k- element in the determiner system with the other elements of the NP (Kachru, 1980). Tag questions are formed by the addition of the negative particle na at the end of the sentence along with an increase in pitch.

Acquisition of Interrogation:

Acquisition of Interrogation has been studied by many investigators (Smith, 1933) Mcgrath and Kunze 1973, Klima and Bellugi. 1966 etc.) The types of interrogative sentences used by children the order of difficulty, the rules that are used by children, the reasons for differential difficulty have all been subject to investigation.

Smith (1933) studied 219 children between the ages of 1.6 years and 6.0 years. She analysed 3095 questions, which was about 13% of the total sample obtained from the children. In the younger children ‘what’ and ‘where’ were most often used. ‘How’ ‘why’ and ‘when’ appeared gradually with the old children. With respect to the use of wh question she

reported that ‘when’ questions were very rarely uttered. Smith (1933) has not mentioned the age of acquisition of each the wh types or the criteria for classifying the children as belonging to the younger or older age groups.

In another study, Carpenter (1966) collected sentences from 70 KG children in the age range of 4.11 to 5.10. About 23% id 31 of the 136 sentences were questions. Among

the interrogative sentences, there were:

1) 3 questions (10%) by reversal of subject and verb.
2) 10 quesition (32%) by using an auxillary and reversing the subject and Auxillary.
3) 3 questions (10%) by use of a question word.
4) 6 questions (19%) by using question word with reversal of subject and the verb.
5) 9 questions (29%) by use of question word with reversal of the subject and auxillay.
6) 25 question (81%) required reply in either verb or noun verb – noun statement pattern.
7) 6 questions required a reply in either the noun verb-adjective or noun linking verb-noun statement pattern.

Such investigations give us a clue as to the kinds of sentences that are used by children rather than how these pattern are acquired.

Rules for question formation in Adults and Children have been given by Klima and Bellugi (1966).

S -> A – Wh + - NP Aux – VP

NP -> W1+ +Irdet (Provided that Q and not Q-W1+ introduces 5)

VP -> V

Be (NP)

Have

Transformations:

I Replacement of do

$$T - do - \begin{matrix} M \\ Neg \\ be \end{matrix} \; have \Rightarrow T - \begin{matrix} M \\ have \\ be \end{matrix} - (Neg)$$

Do is unspoken unless some element interve between Aux do and main verb

II Interrogative preposing (Optional)

$$Q - X^1 - Wh + Indet - X^2 \Rightarrow$$

$$= Q - Wh + Indet - X^1 - X^2$$

III Interrogative Incersion:

$$Q - Wh\ (+Indet) - NP - Aux_1 - X \Rightarrow$$

$$Q - Wh\ (+\ Indet) - Aux_1 - NP - X$$

IV Do Deletion

$$T - do - V \Rightarrow T - \emptyset - V$$

Rules in Children's speech:

Period I

S -> Q yes/no – Nucleus

S-> Q what - NP – (doing)

S-> Q Where – NP - go

Period II

	Q yes/no	
	Q what	
S ->	Q where	Nucleus
	Q why	

Nucleus – NP – V – (NP)

…….

Hp Ø if sentence is introduce by O what

Period III

S -> (Q (wh)) - NP – Aux – NP

Transformations:

1) Interrogative word preposing
2) Interrogative Inversing (charterising only Yes- no questions)
3) Do deletion

There rules were derived from language samples of 3 children. The duration of the study was from the time the children ahd a MLV of 1.75 morphemes till the time they had a MLV of 3.75 morphemes.

In the development of yes-no questions, Klima and Bellugi (1966) reported two distinct stages. The 1st stage is characaterizedby a rising inctonation along with the nucleus of the sentence. In the 2nd stage ‘do-support’ and ‘subject auxillary’ invrsion appears, but tense adjustments are not yet applied. Bellugi (1971) also pointed out that in yes-no question, subject auxillary inversion is optinal. However when children begin to use auxillay verbs regularly, they almost invariably apply subject auxillary inversion in yes/no questions.

For Wh questions, Klima and Bellugi (1966) report that there are 3 stages in the development. In the 1st stage the wh questions are limited to the form’ What-NP’ and “where NP”. Here most often children give inappropriate answers to wh questions put to them. In the second stage, the responses to most wh types are consistent. On the productive side, ‘What’ and ‘Where’ generalize and ‘ why’ and ‘why’ not’ questions also appear. Auxillaries are limited to ‘can’t’ and ‘don’t’. The stage III is characterized by the use of auxillaries, but until auxillaries appear in declarative senstence, the subject auxillary inversion does not appear. Bellugi (1971) also noted that when subject auxillary

inversion appear in wh questions, there exists an order of appearance. There are 3 stages of acquisition of subject auxillary inversion: 1) With yes no questions, 2) With affirmative sentence, 3) with negative, wh questions.

Brown (1968) reported that children do not respond to why questions till stage III though they may use them in the stage II. He also noted that the surface structure of the wh questions may not represent the underlying structure. Menyuk's (1969) findings also support the findings of Klima and Bellugi (1966). She notes that till Aux/modal node of the base structure of the grammar is acquired by the child, well formed structures cannot be derived and the transformational rules for the generation of negative and questions cannot be applied.

In an extensive study Ervin-Tripp (1970) studied question comprehension in 24 children aged 2 years and 2.6 to 3.9 years of age. In one group of 5 children aged 2 years, language samples were collected over a period of a year. She took into consideration not only the order of development in discourse agreement but also the nature of answers made by the children before they were similar to adult forms.

In the 1st group of five children she noticed that yes-no, what and where questions were the first to be understood. In the other group of order children the order of comprehension was 1) why, 2) who subject, 3) how, where form, 4) when, who object. However she did question the statistical reliability of this ordering as there was great deal of individual variation in the acquisition with different children.

More rencently in an elaborate study of comprehension and production of question, Tyack and Ingram (1977) studied children between 2 years and 5.5 years. In comprehension study, 100 children between 3.0 and 5.5 were studied. Syntex, vocabulary were controlled. It was notice that the frequency of correct answers increased with age. The order of correct responses were as follows.

1) Where – intransitive verb, 2) why- intransitive verb, 3) why – transitive verb, 4) who – subject, 5) Where- transitive verb, 6) what - object 7) who- object, 8) when – intransitive verb, 9) when - transitive verb, 10)how-transitive verb, 11) how –intransitive verb, 12)what-subject.

These results support Ervin Tripp's (1970) hypothesis

that who, because it has an animacy feature is associated with the subject position, while what because of its inanimate feature identified with the object position. In contrast to the findings of Ervin Tripp (1970), when questions were easier than 'How question. Intransitive sentences were comprehended better than transitive. ' How' questions were the only exception to this rule.

The production study included 22 children between the ages of 2.0 to 3.11. The chronological order of development of these questions was I vesno – 1) normal 2) tag.

II Wh questions 1)What 2)Where 3)why 4) how 5) who 6) when 7) others. At the age of 2, children produced 'vesno, 'what', 'where' question very often. 'why' and 'show' questions increased with age. "who ' and 'when' questions were rare in the age group of 2.0 to 3.11.

Sridevi (1976) studied some aspects of acquisition of language in 2^{+} years old Kannada speaking children. She reported that yes-no questions and some wh types- (elli, Va;Ke, Varu) were present in the spontaneous speech of Kannada speaking chidren.

Prema (1976) noted that by the age of 6 years, Kannada speaking children develop 'yes-no' type and 'wh' type of questions.

The above studies indicate that there is a gradual development of the different types of questions,sycholinguists have also tried to investigate why some types of questions are acquired later. Cairns and Hsu (1978) studied the responses of 50 children to wh questions after they were shown vedio taped sequences. The age range of the children was 3:0 years to 5:6 years. The differential difficulty of various forms of wh questions is believed to support a parallel model of information retrieval and processing during discourse.

The younger children used ‘what for’ or ‘how can’ rather than ‘why’, ‘when’. questions were more difficult then ‘ why’ questions. In ‘why’ questions only a antecedent consequent relationship needs to be developed. While in “when’ questions a two way relationship needs to be developed.

The child must be able to relate events to the extents that follow or proceed it. Another possible reason for ‘why’ being easier than ‘when’ is that causality is acquired before temporality. ‘how’ questions seem to be difficult because more demands are placed on the child if the child chooses to respond to the question. ‘How’ questions may involve many unrelated skills.

Apart from yes no and wh questions, the acquisition of tag questions have also been studied. May be in the early years, children use simple forms of tags like ‘right?’ or ‘huh?’. Later these forms are substituted by more complex forms. Brown and Manlon (1970) report that tag

questions appear only after yes no question are well established.At the 1st stages tags in English appear only as positive tags, whether the sentence is a affirmative or a negative sentence.

To investigate the hierarchial difficulty in the process of tag acquisition, Mcgrath and Kunze (1973) elicited tag questions from 48 normal children between the ages of 5 and 11 years. There are 4 operation in English which lead to the generation of a tag question. In these children, the order of difficulty of the acquisition of the four operations (from easiest to most difficult) was as follows: 1) Inveration of the pronoun and the auxillary verb, 2) Pronoun selection, 3) auxillary verb selection 4)adition or deletion of negation. This order of difficulty is constant with the age group studied. The investigators also noted that the younger children tend to abstract alternate less complex phrase structure rules than the rules than can account for spontaneously generated tag questions.

By the age of 10, the yes no type, wh type and tag type of questions seem to be understood by normal children Russel et al, 1976). Studies in interrogation have spanned from children from the age of 2 years to children till about 11 years of age.

The results of the studies indicate, that there is a progression in the acquisition of interrogation. The yes no and the wh type are acquired by the age of about 6 years, but the tag questions may be more complex and may be acquired even after the age of six.

2.43 Coordination:

Coordination is a recursive process that enables language to generate with the help of finite number of rules, infinite number of sentences (Wilber et al 1975). By the process of coordination, two or more underlying strings are joined, without domination to derive a complex sentence or a part of a complex sentence (Fowler, 1971).

Coordination of full sentences) or nonsentential coordination

(coordination of full sentences) or nonsentential coordination (Coordination of

NP's, VP's etc. (Ardery, 1979). If the two sentences have elements in common then one occurrence is deleted or pronomilized to avoid redundancy of elements. This rule is called conjunction reduction rule.

In Hindi coordinate can be divided into 4 sub categories:

1)coordinate conjunction 5r (and),

2) disjunction – va (or)

3) negative disjunction na (neither),

4)adversative conjunction Par (Kachru, 1980).

Koul (1974) noted that in Hindi three types of coordinate conjunctions are possible:

1) Unreaduced:Where there are no identical lexical items in the sentences that are conjoined.
2) Partially reduced: by transformations identical lexical items are delated are deleted and some morphemes are added to form conjunction.
3) Fully reduced:- where identical lexical items are reduced and by transformation the differing elements and the coordinating morpheme join to form compound or complex sentences and (if necessary) changes in dependent verbal affixes from singular to plural.

Acquisition of coordination:

Studies on the acquisition of coordination are relatively few. One of the early studies in co-ordination was reported by Katz and Brent (1968). These investigations analysed samples of spontaneous speech from 1st grade – 6th grade school children and a group of college students. They investigated the connectives because, then, therefore, but, although, and and. Their analysis revealed that the youngest children is the 1st graders, understood more of a temporal relation of because rather than a causal one. The meaning of because was more sequential for them than causal. The 3 connectives because, then, and therefore were marked semantically as then. The other connectives but and although were not comprehended by the 1st graders

The 6th graders on the other hand could identify sentences correctly using these words, but could not account for their choice. In general from 1st to 6th grade there was a change in the meaning of the connectives because, then, and therefore. Another developmental trend that was seen was the preference for the linguistic order of clauses to mirror the temporal order of cause and effect events. This could indicate a cognitive awareness of cause and effect by the 6th graders.

The earliest forms of conjunction seem to occur by just juxtar posing two words together, Bloom (1970). By the age of 3 years, the technique of conjunction all the deletions that are permissible are well established (Menyuk, 1969) Forty two percent of the Nursery group in study were using all aspects of conjunction correctly. And by Grade I, 81% of the children were using the conjunction correctly. Some tense sequencing and pronomilization errors were evident in about 35% of the grade I chidren. Using ‘and’ for conjoining was present in all the children.

Other studies have investigated how children understand correctives. Neimark and slotmick (1970) choose 3rd garders, 9th garders and college students to study the connectives ‘and’ and ‘or’. The analysis revealed that with age there was better performance. An observation of the study was that ‘or’ is often misinterpreted as ‘and’ by the children.

In an extensive study Ardery (1979) studied comprehend-sion and production of coordinator ‘and’ in 60 children

between the age of 2.5 years to 6.0 years. The order of difficulty for comprehension is listed in the table

Children performance comprehension experiment

Ardery 1979

	Mean age in Gultman Category	Comprehension In each Structure in Percentage
Intranstitive Verb	3.11	100
Object NP	4.0	99
Sentential intrasition	4.3	97
Vp	4.5	95
Subject Np	4.9	75
Sentential Transitive	5.0	67
Gapped Verb (with particle)	5.0	42
Transitive verb	5.2	24
Gapped verb (no particle)	5.7	10
Gapped object	5.9	4

A comparison of the order of difficulty in comprehension and the production ability showed that those structures that were easy to comprehend were also easy to produce. The most difficult to comprehend elements were rarely produced but uttered as simple sentences. The only exception to this rule was sentential coordination which was produced more often than comprehended. This exception can be explained on the nature of the task and the demand on the child.

The children also seemed to have difficulty in linking the 1st subject NP with its adjacent verb. The same was noticed with transitive verb coordination and with gapped object co-ordinations. The children seem to expect an subject verb relation and verb object relation to be marked avertly by means of linean ordering. This led to the posing of a 'linean sequencing hypothesis' that for declarative sentences in English the children expect a sentence initial subject to be followed by a verb, and a traneitive verb to be immediately following by an object.

Another hypopothesis coordination strategy was proposed by Ardery (1979) to explain the difficulty among the coordinate structures subject NP coordination, transi-

tive verb coordination, gapped verb coordination and gapped object coordination. The coordination strategy states that any sequence of two or more elements joined by ‘and’ with the same constituent structure and function should be same function as the individual elements joined by ‘and’.

In children the linear sequencing requirement is the primary constraint on the strategy of processing coordinate structures. Then this is relaxed so that the coordination strategymay be applied to sentence initial coordinations. Next the linear sequencing strategy is obviated, by the coordination strategy and sentence medical coordination become processible. To interepret gapped coordinations the coordination do not have the same constituent. For interpreting these the child must be able to recover the element that has been delted.

Wilber et al (1975) reported that by the age of 8 all the normal children had all aspects of the coordinating process well under control, both in the comprehension and expression task.

In Kannada, language, both Sridevi (1976) and Prema (1979) studied cooridation. Sri devi (1976) reported that no coordinate were present in the spontaneous speec of

2 + year old children. In the 5-6 year old Kannada speaking children studied by Prema (1979), pause, matte, and amele (then) were used as NP coordinators –u was used as an VP coordinator. She also reported that the children would simple sentences rather than conjoin the sentence.

All the above studies indicate that the process of coordination acquisition may start very early and may continue at least till the age of 8 or 9. What are particular stages of development? What are the strategies children use to coordinate sentences? How and why do their rules change? These question have to be explored more in detail.

2.4.4 Pronomilization and Reflexivization

Pronomilization is the replacement of a fully specified Np by a pronoun that agrees with the referent in case, number person and in gender in the 3rd person. It is a process by which the features of the NP that have already been transmitted to the listener are deleted (Wilber et at 1976).

Pronomilization may be obligatory, relatively obligatory or totally optional. I t is obligatory in

sentences with relative causes, and reflexive pronouns.

Pronomilization may be backward, forward or across sentences.Reflexivization occurs. where when there are two conferment noun phrases in the same sentence. The subject NP and object NP of the sentence are the same and the sentence has a transitive verb.

Acquisiton of Pronomilization:

The literature available on pronomilization can be discussed according to whether the study has focused on the syntacatic or sematic aspects.

Menyuk (1963) did ot specifically investigate pro-nomilization, but she indicated that pronomilization was established in only one third of her nursery school subjects and in about 50% of the grade one children.

In a study concentrating on the effects of syntactic environment on the comprehension and interpretation of pronouns in 5 to 10 years old children. (Chomsky, 1969) studied both forward and back ward pronomilization. Her

results indicate that pronomilization could be correctly comprehended by the age of about 5.6 years.

On the production aspect, Prema (1979) reported that both forward and backward pronomilization were present in 5-6 year old children. The frequency of usage of such sentence varied widely in the 4 children studied.

Pronomilization are reflexivization have not been studied by many investigators. Being a more complex process it would be interesting to see how a child understand or produces it. It is possible that the acquisition of pronomilization extends to ages beyond five.

2.5 Some aspects of syntactic development in linquistically deviant children

Syntatic analysis has not been restricted to normal children many imaginative psycholinguists, and speech pathologists have applied the principles of syntactic analysis to diagnose deviancies in language, and plan there future programme.

One of the earliest studies or comparing linguistically

deviant children and normal children was done by Menyuk (1964). The children were matched in terms of age sex and 1Q. The deviant children used fewer transformations and produced fewer grammatical utterances. There was a qualitative differences between the normal children and the linguistically deviant children.

Qualitative differences between 3 year old normal children and 4 ½ years old children with deviant language, were also reported by has (1966).

Linguistically deviant and normal children were compared for their judgements of grammatically. (Liles et al 1977). The 15 children from each group we matched for age, sex and receptive ability. The children were asked to judge sentences as right or wrong and change sentences that were wrong. The types of errors represented 1)Type A- violations in syntactic agreement. 2) Type B – Lexical restrictions and 3) Type C – Word order. The two groups differenced significantly in the ability to judge grammatical errors in sentences in the type A and Type C errors. No significant diffences between the two group existed in the type B errors. when the children were asked to correct.

sentences that were wrong, the linguistically normal children corrected up to 90% of the errors. The linguistically deviant children only corrected the Type B errors. Often the children were able to recognize the error but were unable to correct them.

Morehead and Ingram (1973) compared the development of base syntax in linguistically normal and linguistically deviant children. Significant differences between the two group were found. On time of onset, the acquisition time needed to learn base syntax. Significant differences were also found on the construction types.

Studies on the syntactic structure of the deaf hence revealed that the deaf in general show a greatly retarded rate of development. However the deaf also should some specific syntactic structures that never appeared in normal language development. One such structure was the tendency to impose a subject verb object pattern on sentence. (power and Quigley, 1973; Quigley et al, 1974; Wilber et al, 1975, 1976; Stein Kamp and Quigley 1977).

Language of the Autistic children has also been subject to analysis. Shapiro and Kapit (1978) reported that Autistic children showed fewer and more rigid negation, and good imitation. This indicated that there was adequate registration but poor integrative processing. The authors also noted that at the syntactic level the autistic do not select complex grammatical forms the way normal children do.

Recently some investigator have reported language deviancies and deficiencies in the dyslexic (Vogel 1975) and in clutterers. (Tiger et al, 1980)

These studies indicate that understanding the syntax of normal and linguistivative deviant children would help to diagnose the specific problem so that proper remediation programmes may be initiated. However before understanding the deviant language it is necessary that we understand how normal children acquire language. Such studies are very few in Indian languages.

In general the review of literature indicates that language acquisition continues well beyond the age of five. With new data being presented, many of the old concepts have

change eg. sex differences. Apart from this there has been interest in how children acquire structures, what rules they use, and how do they approximate adult structures.

CHAPTER III

METHODOLOGY

In this investigation, an attempt has been made to describe some syntactic pattern in 4 years old and 5 year old Hindi speaking children residing in Mysore.

Four normal children were included in the study. All the children were native speakers of Hindi and belonged to middle class, families residing in Mysore.

The age range of the children was from 4 years 2 months to 5 years 4 months. Based on the chronological age, the children were divided into two age groups - 4 year old and 5 year old . There was one male one female child in each group. The four children had no history of hearing loss, ear discharge or delayed developmental milestones. Bilateral normal hearing was ascertained by Pure tone audiometric procedure (better thresholds than 25 dB AWSI 1969).

Of the four children, three are attending nursery and one has just entered first class. Since they are staying in a predominantly Kannada speaking area and studying in an English medium school, the children are exposed to both in Kannada and Egnlish.

TABLE SHOWING SOME DETAILS OF THE CHILDREN

Variable	SURBHI	AMREESH	SARIKA	RAJNEESH
Native Language	Hindi	Hindi	Hindi	Hindi
Socio Economic Status	Middle Class	Middle Class	Middle Class	Middle Class
Father’s Education	Ph.D	Ph.D	B.com	M.A
Mother’s Education	M.A	B.A	8^{th} Std	B.A
Joint Family or Individual	Individual	Individual	Individual	Individual

TABLE SHOWING AGE OF CHILDREN

Age given in Years, Months, Days.

	Date	Year	Month	day
Surbhi	9.7.1976	4	1	8
Amreesh	29.6.1976	4	2	5
Sarika	23.3.1975			
Rajneesh	15.8.1975	5	0	0

Age calculated from 15.8.80.

COLLECTION OF DATA:

Speech samples were collected from each child at his or her home. They were recorded on a Sony Cassette recorder model CF 140s with built in microphone. The recorded samples were of approximately 3 hours for each child. About 1 hour of speech sample was collected during each visit. Data were collected within a period of 7 days from each child.

The families were also involved in data collection. The following techniques were used to elicit speech from the child.

1) Interview: The child was asked simple question about himself and his environment. This was also useful to build rapport with the child.

2) Story telling: The child was asked to narrato any story that he/she know. This was supplemented with picture story books and a three-in-one doll, around which a story was built and the child was asked to narrate it.

3) Describing Pictures: A view master with slides, picture books were also used. Here the children had to describe pictures.

4) Games: Here simple games, with toy animals etc., were played with the child.

5) Spontaneous speech: This was recorded while the child was interacting with parents, siblings, other children or investigator.

Both tangible and verbal reinforcers were used to maintain motivation in the children. The tape recorder and the view master were very good reinforcers. The children enjoyed hearing thei own speech being played back.

Analysis and Discussion:

The speech samples obtained from each child was transcribed in broad phonetic scription. Sample of songs, nursery rhymes, and wholly unintelligible utterances were not included in the analysis.

The data obtained from each child were analysed with reference to the kinds of sentences and the syntactic patterns used by the child. The strucutures that were studied included Negation, Interrogation, Coordinations, Pronomilization.

All the sentences generated by the 4 children were classified into 4 main types of sentences. 1) Declarative 2)Interrogative 3) Negative and 4) Imperative. In addition coordinated and pronomilized sentences, and sentences with reflexive verbs were also extracted.

The sentences were than analysed on the following lines.

1) Structure of the sentences used by the children.
2) Developmental order of the 4 aspects of syntax
3) Characteristics of the Deviant sentences uttered by each child.
4) Comparison of forms used by the children to the forms used by adults.

The analysis of the data were done using the Transformational-generative grammar (Chomsky 1965) as the model.

Since it is a descriptive study, statistical analysis has not been undertaken. The results and discussion are presented in the next chapter.

CHAPTER IV

RESULTS AND DISCUSSION

4.0 The samples of spontaneous speech obtained from the four children were combined together. Then they were classified according to sentence types and deviant sentences.

The different sentence types included 1) declarative 2) negative 3)interrogative 4) imperative 5) co-ordinated and 6) pronomilized.

The results of the study are presented under the following categories.

4.1 Structure of the sentence.

4.2 Developmental order among the four aspects that were studied.

4.3 Characterstics of deviant utterances of each child.

4.4 Comparison to adult forms.

4.1 Structure of the Sentence:

The structure of sentences with regard to the different types of sentences are presented here. All the examples given are extracted from the speech sample of the children.

A sentence is a set of words in a linear sequence but is hierarchally structured. It has two main constituents, the NP (Noun Phrase and the PP (Predicate Phrase).

The basic sentence structure of the four children can be represented by the following rule.

Rule I S →(Imp^{Q}) + (Neg)+NP+PDP

This rule is an abbreviation of the rule that can generate different types of sentences. The kinds of sentences that can be generated from the above rule are illustrated below:

Rule: I (A) S →NP+PDP (Dectarative sentence)

1) h m bolte he
‘We’ ‘speak’ PNG

We speak

Rule I (B) S → Neg + NP+PDP (Negative sentence)

2) Uski mummi nahi ayi
‘Her’’mother’’not’ ‘come’ PNG
Her mother did not come

Rule I (C) S→Q+NP + PDP (Interrogative sentence)

3) ye kya kar raha he?
‘he’ ‘what’ ‘do ing’ ‘is’ PNG
What is he doing?

Rule I (D) S →Imp +NP+PDP (Imperatiave sentence)

4) da rvaza band karo
‘door’ ‘close’ ‘do’
Close the door

Rule I (E) S-→ Imp+NP+PDP (Negative imperative sentence)

5) a bap mat bolo
‘now’ ‘you(him)’ ‘do not’ ‘speak’
Now, you do not speak

Rule I (F) S→ Q +Neg +NP+PDP (Negative Interragative
Interragative sentence)

6 Sam ko nahi aye the kya?
‘evening’ ‘not’ ‘come’ ‘had’ ‘what’
Had you not come in the evening?

4.1.1 Declarative sentences:

The declarative sentences in the children’s speech can be representd as:

Rule I (A) S→ NP+PDP

6) Dakar dekh rahe he
‘doctor’ ‘seeing’ ‘is’
doctor is seeing

In this sentence ‘daktar’ is the NP and ‘dekh rahe he’ is the PDP.

Both the NP and the PDP can be elaborated. The structure of the NP and PDP are illustrated with examples.

Noun Phrase cosists of 1) a noun, a determiner and

a opitional 5 element. 2) a Pronoun.

The NP may be represented as

NP→ (Det) (S) N

Pro

Det+N

(8) ek wolf baitha tha

‘one’ ‘wolf’ ‘sitting’ ‘was’

A wolf was sitting.

In the above sentence ‘ek’ is the determiner and ‘wolf’ the noun.

Pronoun.

(9) me tum ko kat luga

‘I’ ‘you’ ‘dat’. ‘bite’ ‘will’

I will bite you

In this sentence me and tum are both pronouns. ‘me’ is the NP immediately dominated by S and ‘tum’ is the NP immediately dominated by VP.

Each of the NP contiotuents are discussed below:

Determiner: - the determiner can be represented as

Det

(k) Indef (Num)

def

Indefinate determiner

(10) ek larki thi

‘one’ ‘girl’ ‘was’

There was a girl

In this sentence ek is the Indefinate determiner.

Defineate determiner – The noun may be proceeded by a demonstrative.

Def→ (±Dem)

Yf- Dem then Def det = ø

In Hindi the definite determiner is unmarked. As in the following sentence.

11) ped ke upar phul he

“tree’ ‘on’ ‘top’ ‘flowers’ ‘are’

on the tree top are flowers

+ Dem → Proximate

Romote

Proximate Dem

12) to Yah lombdi ati he

‘then’ ‘this’ ‘wolf’ ‘comes’ PNG

then this waolf comes

Remote dem

13) Vah he uska ghar

'That' 'is' 'his' 'house'

That is his house

The demonstrative, whether it is remote or proximate agrees in number with the noun that follows it. The agreement between the demonstratives and nouns are illustrated below:

Prox + N_{Sg} - as in sentence (12)

Prox + N_{pl} -

14) ye kargos apne apne ghar jate h

'These' 'rabbits' 'their own' 'house' 'go' PNG

These rabbits go to their own houses.

Rem + Neg - as in sentence (13)

Rem + Npl - This combination can also be generated but is not present in the speech samples that were obtained from the children.

Another constituent of the determiner is the numeral. In the speech samples the nouns were sometimes proceeded by cardinal or indinal numerals. The numberals combined only

with the definite determiner.

(1) def det + Ord + N

(15) pahle raja ha phir rain he

‘first’ ‘king’’is’ ‘then’ ‘queen’ ‘is’

First is king then is queen

(ii) Ref det + Card + N

(16) do admi he

‘two’ ‘men’ ‘one’

There are two men

(iii)Def det + Card (agg) +N

(17) dono mar gaye

‘Both’ ‘died’

Both died

The K-element is discussed along with interrogation.

(S) – The embedded sentence: The descriptive adjectives are derived from the embedded sentence.

Adjectives:

(18) Coti la drki dikh rahi he

‘small’ ‘girl’ ‘seem’ ‘is’

small girl is seen

This can be considered as 2 sentences

(18) (a) 1) larki dikh rajhi he

‘girl’ ‘seen’ ‘is’

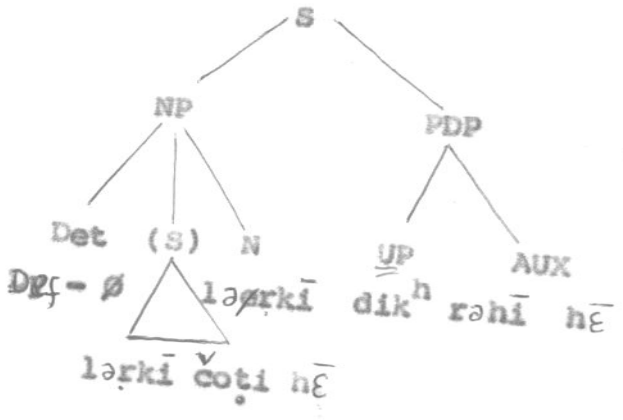
girl is seem

(18) (b) 2) larki coti he

‘girl’ ‘small’ ‘is’

girl is small

In a branching diagram the sentence would look like this.



Here the embedded sentence (s) or <u>larki coti he</u> is reduced by delating the identical N larki and the Aux he. Then the Ap is ‘coti’ is attached in the post determiner position. Adjectives are derived in the above manner.

<u>Nouns</u>:

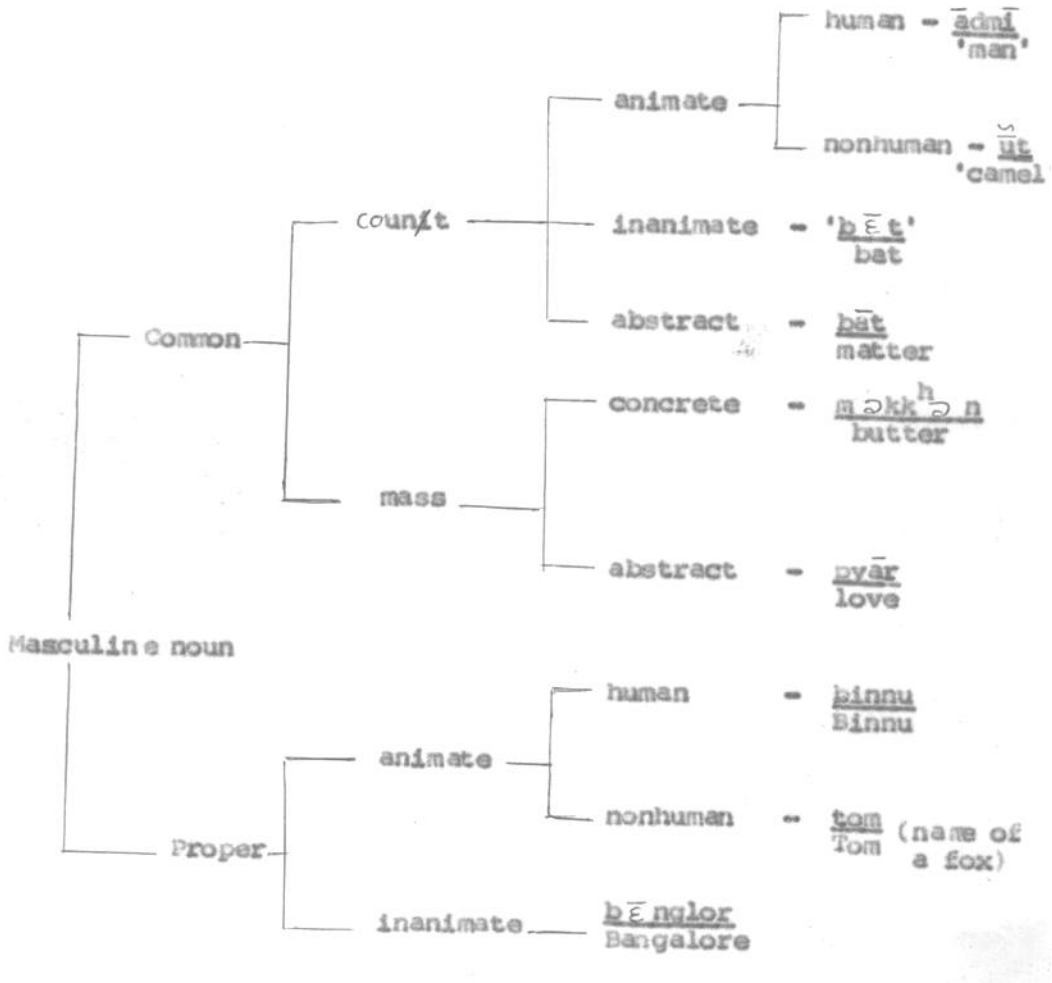
Nouns in the children’s speech can be classified based on whether they are 1) masculine or feminie 2) common or proper. 3) animate or inanimate 4) countable or mass. 5)human or nonhuman 6) concrete or abstract.

All the count nouns are inflected for number but the

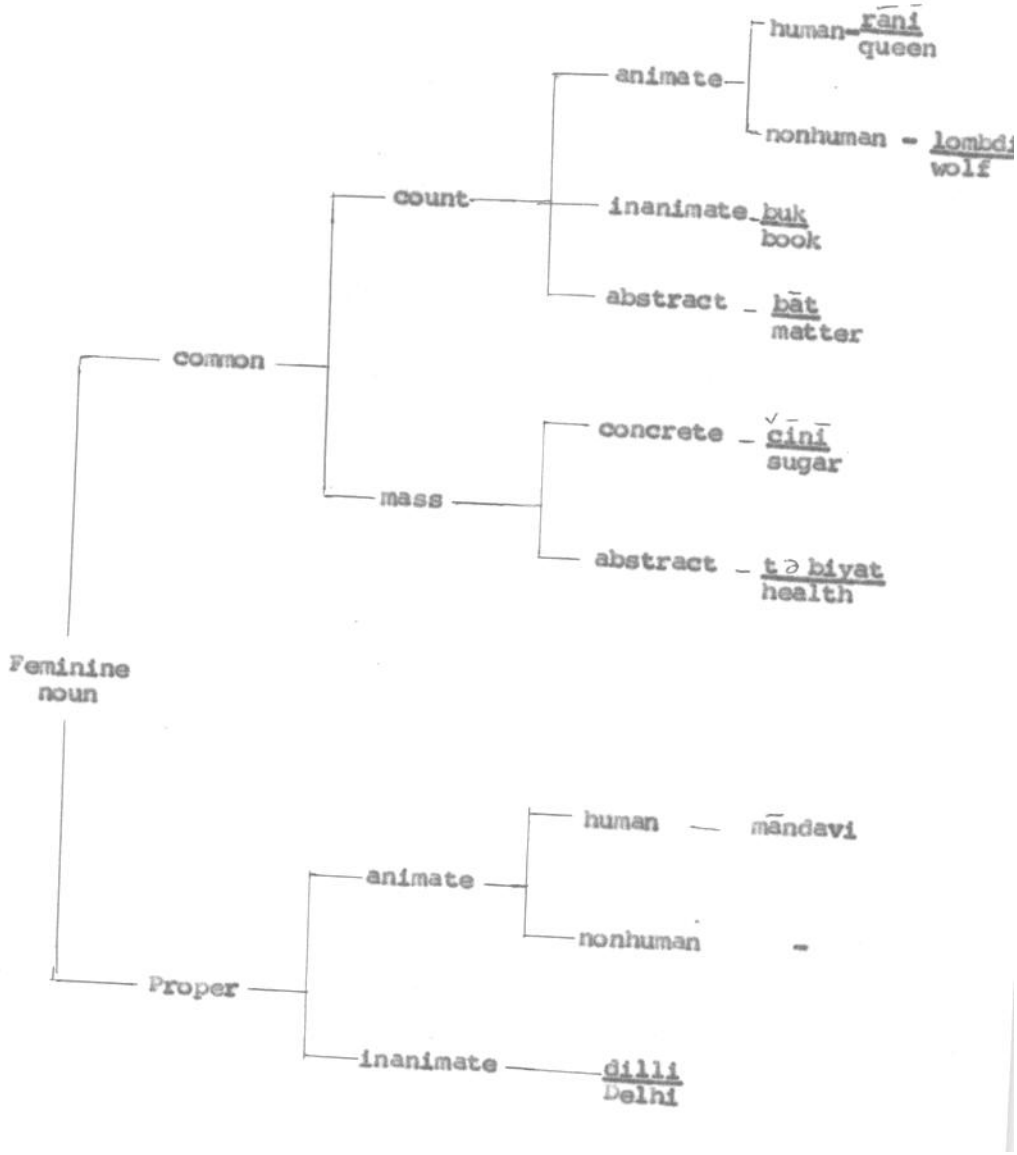
mass nouns are not. These categories are necessary as in Hindi there are cocurrance restrictions between Det and N, and N and Adj's and Vs.

The following two diagrams have been adapted from Kachru (1968) to illustrated the kinds of names that are used by the children.

NOUN (Masculine)



NOUN (Feminine)



Pronoun

The pronouns in the children's speech may be classified on the following basis.

Pronoun - ± Participant

+ participant -- ± Speaker

+ Speaker -- ± Sg

- Speaker -- ± Sg

+ Sg -- ± Hon

- Participant -- ± Proximate

+Proximate - ± Human
+Human - ± Human
-Human - ± Sg
- Proximate - ± Human
+ Human - ± Sg
-Human - ± Sg

All the pronoun can be classified on the above features ie., ± Participant, ± Sepaker, ± Singular, ± Human, ± Hon.

(1) me (2) hum (3) tum (4) ap

I me you you p (hon)

+ Participant + Participant + Participant + Participant

+Speaker +Speaker +Speaker +Speaker

+ Sg -Sg + Sg + Sg

-Hon. +Hon.

(5) ap (6) Yah yah yah

you pl this he/she that

+ Participant - Participant - Participant - Participant

-speaker + Proximate + proximate - proximate

-Sg -human +human -human

-Hon. +Sg +Sg +Sg

Yah Ye Ye ve ve

he/she these these those

they

- Participant - Participant - Participant - Participant

- Participant

-proximate +proximate +proximate -proximate

-proximate

+ human - human + human - human + human

+Sg -Sg -Sg -Sg -Sg

Predicate Phrase

The structure of the predicate phrase ‘may be represented as below:

PDP -- (Adv_T) + (Adv_P) + VP + (Aux)

VP -- (NP) + (PP) + (Adv_m) + V

Adv_T + VP

(19) ab ye dekege

‘now’ ‘this’ ‘will’ ‘see’ PNG

Now we will see this

ab is the Adv_T in this sentence.

Adv_p = VP

(20) Yaha phaiz beta he

‘Here’ ‘Faiz’ ‘sitting’ ‘is’

Faiz is sitting here

Yaha is the Adv_p in this sentence

VP

(21) bhalu Bandar ko cupcap dekh raha he

‘Bear’ ‘monkey’’to’ ‘quietly’ ‘seeing’ ‘8s’

The bear is quietly seeing the monkey.

In sentence (22) cupcap is the Adv_m and dekh is the verb. bandar is the object NP of the sentence.

Accusative - N+ko (‘to’)

Instruemental - N+se (‘with’)

Ablative - N+se (‘four’)

Locative - N+me/par (‘in’)

Dative - N+ ko/ke liye (‘for’)

Accusative Case: N+Ko

(22) yah isko tod aha he

‘he’ this’ (hu) ‘breaking’

He is breaking this

Instrumental case: N+Se

(23) bol se khelte he

‘ball’ ‘with’ ‘play PNG

play with ball

Ablative Case: N+se

(24) me or mummi se magugi

‘I’ ‘more’ ‘mother’ ‘from’ ‘will ash’

I will ask for more from mummi

Locative Case: N+me/p r

(25) sab zane gadi me baithe rahte he

‘all’ ‘people’ ‘vehicle’ ‘in’ keep sitting

Everybody keeps sitting in the vehicle

Dative case

(26) muze pata nahi

'I' (dat) 'know' 'not'

I do not know

Aux.

(27) larki ati he

'girl' 'comes' PNG

Girl comes

Some general observations:

When analyzing the sentences some observations were made with respect to the NP and the PDP in the sentences that the children use.

(a) Subject NP may be deleted.

(28) ro rahi thi

"crying' 'was' PNG

(She) was crying.

Here the subject NP is deleted. The subject NP should have been a singular feminine noun or pronoun.

(b) Some times instead of using a numeral, the noun is repeated twice to give a distributive meaning:

(29) admi admi he
‘men’ ‘men’ ‘are’
There ared many men

(c) Subject NP – may be shifted to the end of the sentence.

(30) zula zul rahu he sab log
‘swing’ ‘swinging’ ‘are’ ‘everyone’
Everyone is swinging on the swing

(d) Sometimes the main verb may be deleted.

(31) apka
‘your’s
‘your’s

This kind of response is noticeable when the child is questioned. Eg. ‘who does this belong to? The utterance should have been

(31)a. ye apka he
This your’s is

This is yours

Sentences like (31) may be found in the speech of adults too.

The shifting of constitutents of either NP or PDP is not restricted only to children's speech but is also seen in the speech of adults. These may indicate stylistic nariations too. In Hindi as there is usually no strict word order, the rules that shift certain constitutents are optional

4.1.2. Negation:

Rule I B S → Neg + NP+ PDP

In the deep structure the negative sentence is represented as

S

Neg NP PDP

The most often negative pentacle used by the children is nahi, which means 'not' or 'no'. Sometimes nonverbal responses are also given by shaking the head to and fro.

The particle nahi is used in 3 different ways.

1) When the children are asked yes-no question, they respond either by shaking their head or just say.

(32) nahi

‘no’

‘No’

All other elements are deleted.

2) Sometimes, the negative particle is followed by an affirmative sentence after a slight pause.

(33) nahi, pakka hota he

‘no’ ‘ripe’ ‘tobe’ ‘is’

No, it is ripe.

(34) pani nahi he

‘water’ ‘no’ ‘there is’

There is no water

(35) Mummi nahi bezti

‘Mummy’ ‘not’ ‘send’

Mummy does not send

(36) hsm kuc nahi karte

‘we’ ‘something’ ‘not’ ‘do’

we do nothing

(37) ghar me koi nahi he

‘home’ ‘at’ ‘someone’ ‘not’ ‘is’

There is none at home

Adults may add an emphatic marker bhi after the indef. marker. Though emphatic markers are present in the speech sample, they do not occur with the indefinite determiner and negative markers.

The imperative negative ‘not’ is also used by the children. It is discussed along with imperative sentences.

‘na’ and word negatives ‘bina’ (meaning: without) are used by adults. The children use ‘na’ only in the tag questions. word negatives are not present in the entire speech sample.

4.1.3. Interrogation ---- Rules I (c) – s -→ Q+ NP + PDP

The presence of Q element in the deep structure indicates that the sentence is an interrogative sentences can be divided into 3 types. a) Yes-no questions. b) wh + question c) tag questions.

A) Yes-No questions:- In the children's speech Yes-No questions are formed in three ways.

1) The intonation of the sentence undergoes a change.

The pitch rises towards the end of the sentence.

(38) hindi padte ho?

"Hindi' 'read' 'do'?

Do you read Hindi?

2) The other way of generating yes-no questions is to

add a kya particle at the end of the sentence.

(39) me caval banau kya?

'I' 'rice' 'make' 'what'?

Shall I make rice?

B) Wh questions - In these sentences the K element which was posited in the DET system attaches it self to different element of NP to yield different wh types.

In Hindi the combination of K- with other elements yields different forms.

	+Pronoun		
Q+K+N	+ person	--→ Kun	"who"

(40) phul kun layega?

'flowers' 'who' 'will bring'?

Who will bring flowers.

+Pronoun

Q+K+N +thing → Kya ‘what’

(41) ye kya he?

‘this’ ‘what’’is’?

What is this?

Q+K-+Adv_m → Kese ‘how’

(42) phir khelege kise?

‘then’ ‘will play’ ‘how?’- PNG

then how will we play

Q + K - + ^{Adv} reas → Kyo ‘why’

(43) me kyo batau?

“I” ‘why’ ‘tell’?

Why should I tell?

Q + K- + Adv_P → Kaha ‘Where’

(44) ap kaha rahte hua?

‘you’ (hon) ‘where’ ‘live’?

Where do you live?

Q+ K- + Adv_t → Kab ‘when’

(45) ap kab zate ho skul?

‘you’(hon) ‘when’ ‘go to’ ‘do’ ‘school’

When do you go to school?

Q + K- + Addirectional --------- Kidhar ‘in what direction’

(46) Kidhar dikhta he?

‘in which direction’ ‘seen’ ‘is’

In which direction is it seen?

Q+K- + Def + cardinal measure ------ kitna “How many’ ‘How much’

(47) Kitne rupaye ka ata he?

‘How many’ ‘ruppees’ ‘for’ ‘come’?

For how many rupees does it come?

+Pro

Q+ K + Def +N +Person ------ ‘Kon-sa ‘which one’

+ Thing

(48) Papa Konsi sabzi koge tum?

‘father’ ‘which’ ‘vegetable’ ‘will eat’ ‘you’?

Papa which vegetable will you eat?

Some wh forms appear as reduplicated forms. such forms give a distributive meaning.

(49) Kon Kon Khada he Papa?

‘who who’ ‘standing’ ‘are’ ‘papa’

who all are standing?

(50) Kya Kya he mummi?

‘what’ ‘what’ ‘is there’ ‘mummy?

What all is there mummy?

C) <u>Taq questions</u> – In tag questions the speaker presupposes that the preposition is true and expected the hearer to confirm it.

the tag marker is derived from the following rule.

S -→ Q Neg NP PDP

First the Neg element is marked to the end of the sentence and then the element is realized as a change in intonation. The negative morpheme that is added is usually ‘na’.

(51) ap bhi the na?

‘you (hon)’also’ ‘were’ ‘no’?

you were also there wren’t you?

4.1.4. Imperative sentences:-

The imperative sentence indicate command or request. IN the deep structure Imperative sentenced can be represented as:

Rule 1 (D) S -→ Imp +NP + PDP

Imperative sentences were the least in number among all the kinds of sentences produced by the four children. The children used three forms of verbs in imperative sentences 1)Verb root, 2) Verb + second person plural, 3) Verbal noun,

In most sentences the subject NP is deleted.

1) Verb root:

(52) idhar dekh

‘here’ ‘look’

(you) Look here.

In general this form is used while addressing peers or people of lower caste or rank.

2) Verb + Second person plural:

This form of the verb is used most often by all the children.

(53) ek kahani sunao

‘one’ ‘story’ ‘narrate’

(you) narrate a story

Or sometimes only the verb is used.

(54) thaharo

‘wait’

(you) wait

In some sentences the subject NP is not deleted.

Therefore deletion of subject NP is optional

(55) papa, ab tum batao

‘father’ ‘now’ ‘you’ ‘tell’

father, now you tell.

3) Verbal noun:

This form of the verb is used only by one child

(56) mere ko dikhana

‘me’ ‘to’ ‘show’

show me

Negative Imperative:

The children use both nahi and mat as negative markers. nahi is used more often than mat.

(57) isko band nahi karo

‘this’ ‘close’ ‘not’ ‘do’

Do not close this.

a bap mat bolo

‘now’ ‘you(hon) ‘donot’ ‘speak’

Now you donot speak.

None of the four children, use imperative verb forms like ayiye, or ayiyega is verb + second honorific,

or verb + second honorific with future suffix – ga

respectively. These forms are used by adults.

To derive imperative sentences the children use any of the verb forms illustrated in the examples. The deletion of the subject NP is optional.

Co-ordination:

Co-ordination is the process by which two or more sentences are joined together with the help of co-ordinators. The co-ordinated sentences in the speech sample of the children can be divided into three broad types:

(A) conjunction - or ‘and’
(B) disjunction - va ‘or’
(C) adversative conjuction - par ‘lehin’ ‘Kyoyki’

(A) Co-ordinate conjuction:

In the speech of the children, the NP’s conjoined, VP’s and whole sentences are conjoined. Each of these are discussed below:

NP co-ordination:

(1) A pause between the NP functions as co-ordinator.

(58) Ye murgi elephant batak khel rahe he
‘these’ ‘hen’ ‘elephant’ ‘duck’ ‘playing’ ‘are’
These hen, elephant, duck are playing.

In this sentence a pause between, ‘murgi’ and ‘eliphant’ and between ‘eliphant and batak functions as coordinator.

(ii) In other sentences the coordinator or is used.

(59) raza or larki nac rahe he
‘king’ ‘and’ ‘girl’ ‘dancing’ ‘are’
king and girl are dancing

This sentence can be considered as the simple sentences that have been conjoined with or. The two sentences are:

(59a) . raja anc raha he
‘King’ ‘dancing’ ‘is’
king is dancing

(59b) larki nac rahi he
‘girl’ ‘dancing’ ‘is’
Girl is dancing

While conjoing the simple sentences, where the verbs are the same, one of the two identical verbs is deleted.

Between the two NP's the coordinator or is inserted. Verb-noun agreement is maintained. Both subject NP's and object NP's were conjoined in this manner.

Choice of NP coordinator:

Whenever only two NP's were conjoined the or was invariably used.

(60) raza or rani bhi he

'king' 'and' 'queen' 'also' 'are'

King and queen are also there

However if there are more than two NP's in a sentence, then only pause, or only or or both pause and or are used. There is no consistency as to where or or pause is used. Adults while conjoining more than two NP's usually insert the or just before the last NP. This rule is not seen in the samples of the children.

a) when only pause is used to conjoin more than two NPs. As in sentence (58)
b) When ther are more than two NPs and or is used as coordinator.

(61) batak or bakri or kargos, hathi ke ghar gaye

'duck''and' 'goat' 'and' 'rabbit'

'elephant's''house''went'

Duck and goat and rabbit went to elepaht;s house

c) when there are more than two NPs and both or and pause are used.

(62) appu baiya or gagan, mummi he
‘appu brother’ ‘and’ ‘Gagan’ ‘mummy’ ‘are’
Appu brother, and Gagan and Mummy are there.

VP Coordiantion:

As in NP coordination, puse and or also function as coordinators of VPs.

i) Pause as a UP coordinator:

(63) hat per dhote he nahate he
‘hand’ ‘feet’ ‘wash’ ‘bathe’
(we) wash hand feet (coj) bathe

This sentence can be derived from two simple sentences.

(63a) (ham) hath per dhote he
‘hand’’feet’’wash’
Wash hadn feet

(63b) (ham) nahate he
‘bathe’
‘Bathe’

In the conjoined sentence the NPs which function as subject has been deleted.

ii) or as a VP coordinator:

(64) papa nahete he or khana khate he

‘father’ ‘bathes’ ‘and’ ‘food’ ‘eats’

Father bathes and eats food

In this sentence during the process of cojoin the two verbs, phrases, the subject NP of one of the two constituent sentences is deleted.

(64)a. papa nahate he

‘father’ ‘bathes’

Father bathes

(64)b. papa khana khate he

‘father’ ‘food’ ‘eats’

Father eats food

The subject NP of both sentences is (papa’, so while conjoining one of the two subject NP’s has been deleted.

iii) or phir as VP coordinator:

This is used as a coordinator only when events follow each other in time. In other words, when events are temporally related.

(65) Vandana khelti he or phir ghar ati he
Vandana plays ‘and then’ home comes
Vandana plays and then comes home

iv) Kar as VP coordinator:

Kar is used when events were related temporally.

(66) babuzi subah uthkar, nahakar puza kaerte he
Babuji morning ets up(coj) beathes (con) pooja does
Babuji in the morning gets up, bathes, does pooja.

Occassonally the different coordinator are ued in a single long sentence. One such sentence is give below:

(67) paidal paidal zakar, idhar mudte heor ese zate he

‘by walk’ ‘by walk’ ‘go’ (conj) ‘here’ ‘turn’’and’’thisway’ ‘go’

We go walking, turn here and turn this way

or ese mudte he phir stret zakar or phir

‘and’’thisway’ ‘turn’ ‘then’ ‘straight’ ‘go’ ‘and’ ‘the’

and turn this way, then go straight and then

ese zate he or ese zate he phir skol milti he

‘like this’ ‘go’ ‘and’ ‘likethis’ ‘go’ ‘then’ ‘school’ ‘is’ ‘met’go like this and like this then school comes.

Sentence coordintation:

There are some sentences that ae co-ordinated without deletion of the common elements. This often occurs when children describing pictures.

(68) Khilone he or pedhe or sidi he

‘toys’ ‘are’ ‘and’ ‘tree’ ‘is’ ‘and’ ladder’ ‘is’

There are toys and there is a tree and there is ladder.This sentence can condensed by deleting the common Aux he are also deleting one of the or coordinator.The sentence then would have been

(68)a. Khilone, ped or sidi he

‘toy’, ‘thee’ ‘and’ ‘ladder’ ‘are’

There are toys, tree and ladder

(69) me drivar banta hu or kumar kandaktar banta he

‘I’ ‘ ‘driver’’become’ ‘and’ kumar’ ‘conductor’ becomes

I become driver and Kumar becomes conductor.

(70) mammi eke k din marti he or papa roz marte he

‘mummy’ ‘one one’ ‘day’ ‘hits’ ‘and’ ‘papa’ ‘everyday’ ‘hits’ Mummy hits some days and papa hits everyday.

Sometimes along with coordinators, the emphasis maker was added.

(71) annu bada he or binnu bhi bada he

‘annu’ ‘big’ ‘is’ ‘and’ ‘binnu’ ‘also’ ‘big’ ‘is’

Annu is big and Binnu is also big

B. DISJUNLTIVE COORDINATION:

In the entire sample thre are only two examples of disjunctive cordinations.

(72) caval cahiye ya roti cahiye?

‘rice’ ‘want’ ‘or’ ‘roti’ ‘want’?

do you want rice or do you want roti?

(73) lait dikhti ya nahi dikhti?

‘light’ ‘seen’ ‘or’ ‘not’ ‘seen’?

Is the light seen or not seen?

C. Adversative Conjunction:

Adversative coordination are also not use very often

(74) hamare sath baitthi he lekin khub marti he

‘us’ ‘with’ ‘sits’ ‘is’ ‘but’ ‘lot’ ‘hits’ ‘is’

(she) sits with us but hits a lot.

PRONOMILIZATION AND REFLEXIVE PRONOUN USAGE

Pronomilization is the process of sustituing a pronoun for a NP where an antecedent NP is a care-frential of the NP. Pronomilization may be forward or backward.

In the obtained speech sample there are very few pornomilized sentences.

(75) podhe nahi hote kya? unke dal nahihote kya?

‘plants’ ‘not’ ‘are there’ ‘what its’ ‘branches ‘not’ ‘are there’ ‘what’?

Plants are not there what? Don’t they have branches?

Usko cinke kinckar le zate he

‘that’ ‘grab’ ‘pull’(conj) ‘take’ ‘away’

that pull after grabbing, we pull, take and go.

Backward Pronomilization:

(76) Vocole gaye nagarthna ati

‘she’went’ ‘away’ nagaratna’ aunty’

She wnt away, Nagaratna aunty.

In this sentence ‘vo’ refers to Nagarathna ‘aunti’

Forward Pronomilization:

(77) sonzey Gandhi ek admi the unki ma indira Gandhi thi.

‘Sanjay Gandhi’ ‘are’ man’ ‘was’. ‘His’ ‘mother’ ‘Indira Gandhi’ ‘was’

Sanjay Gandhi was a man. His mother was Indira Gandhi.

In these sentence ‘unki’ is the second sentence refers to sanjay Gandhi.

Forward Pronomilization within a sentence is not been in the speech sample of any of the four children.

Reflexivization:

Reflexivization occurs when two coreferent noun pharses occur in the same simple sentence. (Quigley et al. 1976)

There were a few sentences which had reflexive pronoun

in their structure.

(78) me apnea p hi banaugi

‘I’ ‘myself’ ‘only’ ‘will’ ‘make’

I will make by myself only

(79) ye apnea p nikal kar gir zayega

‘He’ ‘by himself’’out’ ‘get’ (conj)’fall’ ‘down’ ‘will’

He will by himself get out and fall down

(80) apne ap hi a gaya

‘himself’ ‘only’ ‘came’

(He)came himself

In all these sentences apne ap refers to the subject of the sentences.

As there were very few examples of poronomilization and reflexivization no generalization is attempted.

TABLE I

Table showing Structures which are present in each child’s speech sample

Structures	4 year old's group		5 year old's group	
	SURBHI (F)	AMREESH (M)	SARIKA (F)	RAJNEESH (M)
Negation nə̃hi	+	+	+	+
WORD NEGATION	-	-	-	-
Interrogation				
a) Yes No	+	+	+	+
b) WH kyā	+	+	+	+
kahā̃	+	+	+	+
kɔn	+	-	+	+
kyõ	+	-	+	+
kiskā	+	+	+	+
kidʰər	-	-	+	+
kɛ̃se	+	-	+	+
kɛ̃sa	-	-	-	-
kəb	-	-	-	+
c) TAG	+	+	+	+
Imperative Positive	+	+	+	+
Negative nəhi	+	+	+	+
məṭ	-	-	+	+
Coordination				
NP coordn.				
pause	+	+	+	+
ɔ̃r	+	+	+	+
VP coordination				
pause	+	+	+	+
ɔ̃r	-	+	+	+
kər	-	+	+	+
ɔ̃r pʰir	+	+	+	+
COORDINATION				
Conjunctive yā	-	-	-	+
Ad. Coordination: lekin	-	+	-	-
kyõki	- (1)	-	-	+
Ref. Pronoun	+	+	+	+
Causative Verb	- (2)	+ (3)	-	+

(1) Uses isliye instead of of Kyoki

(2) Not used but implied

(3) Verb used, but inappropriately.

TABLE II

Table showing Syntactic structures which are present in Four year old and Five year old children.

Structures		4 year Age group	5 year Age Group
Negation	nā̃	+ 1	+
	nəhī̃	+	+
	word negation	-	-
Interrogation	1)yes no	+	+
	2)wh questions	+	+
	kyā	+	+
	kahā̃	+	+
	kɔ̃n	+	+
	kyõ̃	+	+
	kēse	+	+
	kiskā	+	+
	kidʰar	-	+
	kɛ̃sa	-	- 2
	kəb	-	+ 3
	3)Tag question	+	+
Imperative	affirmative	+	+
	negative nəhī̃	+	+
	mət	-	+
Coordination	Coordinate NP coordination Pause	+	+
	ɔ̃r	+	+
Adversative coordination		+	+
Conjunctive coordination		-	+
Reflexive Pronouns		+	+
Causative Verb		+ 4	+

1. Used along with tag only
2. Used inappropriately
3. Used zab instead and later kab on prompting
4. Used either inappropriately, or not used when it should have been used.

4.2. Developmental trends:

To investigate developmental trends among the four children, the data from the two four year olds were combined together and compared with the data of the two five year old children. Table II summaries the structure that are present in the two groups.

4.2.1. Negation:

All the four children ue nahi consistently as a negative marker. Most often the negative marker is used the way adults use them. The few exception to this rule are discussed under section 4.3. There are no obvious differences between the four year olds and the five year old children in negation.

4.2.2. Interrogation:

Both four five year old children ue yes no questions, wh questions and tag questions. The differences between the four and five year old children noticed on a few wh type of questions. The four year old children do not use ‘kab’ and kesa forms. The five year old children use these forms but deviantly. While the five year old

children use kidhar consistently, the four year old children do not use them at all.

These forms may still be in the process of acquisition. Tyack and Ingram (1977) and Smith (1933) have reported that 'when' is one of the last forms to be acquired. The order of acquisition of wh question in Hindi is not known.

4.2.3. Imperative Sentences:

None of the children use the 2nd person plural honorific and 2nd person honorific form with future suffix ga of the verb to indicate imperation. The five year old children use both nahi and mat in imperative negative sentences, while the four year old children use only nahi.

4.2.4. Coordination:

The difference in the two age groups in evident only in adversative and disjunctive coordinations. One five year old child uses 'ya' or 'kyoki' which the other three children do not use. 'Kyoki' is used in a deviant manner by one four year child. This is discussed under section 4.3. One four year old child used 'lekin', the other child do not use this form.

All the four children have not acquired the rule of positioning the 'or' marker just before the last NP in a

sentence with more than 2 NP’s. The acquisition of coordination is seems to continue beyond the age of five.

4.2.5. Pronomilization and Reflexivaztion:

Pronomilized sentences are very few in the speech samples. Most often pronomilization was across sentences. Chomsky C (1969) reported that pronomilzation may be acquired after the age of five. It is possible that this aspect may yet have to be acquired completely by these children. Reflecive pronouns are used by all the children.

4.2.6. Causative Verbs:

One five year old child uses causative verbs.The four year old children used the causative formation when it is not necessary. When the need rose to use causative verb form, it was not used. This could indicate that four year old children may still be in the process of acquiring causative verbs.

4.2.7. Differences between the sexes:

To investigate differences between the sexes, the male and female child in each age group were compared. Table I

summarizes the structures that are used by each child.

In general the difference between the sexes in both the age groups, are on structures that are yet rare in the speech samples. In the five year age group, the difference is seen in wh question types ‘kesa’ and ‘kab’. These wh types are not consistent in the speech of the children. While the male five year old Ranjeesh used ‘kyoki’ consistently it is not used by the female child Sarika. Among the four year old children toothe most obvious difference seems to be an wh question types. Surbhi, th female four year old uses ‘Kon’ ‘Kyo’ and ‘kese’ consistently. This is not present in Amreesh’s speech sample. Amreesh’s parents reported that Amreesh does use these forms.

The difference in the use of structures by the two sexes is basically on forms, that the children have not acquired completely yet. These differences could also be reflecting the individual variation in the development of language.

4.3. CHARECTERISTICS OF DEVIANT UTTERENCES OF THE CHILDREN

All the children show a few deviant sentences. Some of the deviancies are idiosyncratic, while others are common in all the four children or common in that age group.

4.3.1 Charecteristics of the deviant utterances:

Both the four and five year old children are inconsistenet in the use of some structures. These include, word order in some sentences of noun-gender agreement, choice of post positional phrase, choice of the verb or the use of the verb in same sentences.

(a) Word Order:

In Hindi genrally the constituent of a sentences are not moved after the verb. A few sentences where the constituents moved after the verbs are noticed.

(81) Pappi didi bahar gayi usko lekar

‘pappi sister’ ‘out’ ‘went’ ‘that’ ‘taking

Pappi sister went out taking that

teyar hote he skulk e lieye nasta karke

‘ready’ ‘become’ ‘school’ ‘for’ ‘snak partaking’

After partaking snack we get ready for school.

In this sentence ‘usko lekaer’ should have occurred in the following manner.

(81)a. nasta karke skul keliye tayar hote he

‘snak’ ‘partaking’ ‘school’ ‘for’ ‘ready’‘become’.

After partaking sanck, we get ready for school

(82) raza ke pas kada he mantra

‘king’ ‘to’ ‘near’ ‘standing’ ‘is’ ‘minister’

Near the king the minister is standing

Here again a constitutent has been moved beyond the verb. The more appropriate word orde would be

(82)a. raza ke pas mantra kada he

‘king’ ‘near’ ‘Minister’ ‘standing’ ‘is’

Near the king, Minster is standing

In other sentence the order of words within the sentence was not appropriate, or at least deviated from the way the children generally use them.

(83) cal raha nahi he

‘moving’ ‘not’ ‘is’

It is not moving.

The rule used by children and adults is that the verb is positioned before the Verb. so in this sentence the negative marker nahi according to the rule would be positioned before ‘raha’.

An acceptable sentence would be

(83)a. cal nahi raha he

‘move’ ‘not’ ‘ing’ ‘is’

It is not moving.

Such exception to the general rule are seen in all the four children.

(b) Ambigious Sentence:

a. In tdhe speech samples of the children there are some ambigious sentences too:

(84) Yaha par sab lombdi kha rahi he

‘here’ ‘all’ ‘wolf’ ‘eating’ ‘is’

Here the all wolf is eating away.

This sentence was uttered in response to a picture where a

fox was eating all the food. The sentence would be more clear if it was uttered as.

(84)a. yaha par lombdi sab kha rahi he

‘Here’ ‘wolf’ ‘all’ ‘eating’ ‘is’

Here the wolf is eating away everything

(85) daku sab cori karte he

‘dacoits’ ‘all’ ‘steal’ ‘do’

(6) All dacoits steal.

It is not clear where the child means that all dacoits steal, or dacoits steal everything.

C. None of the children are stable in gender agreement. All the four children utter sentences where there is lack of gender disagreement.

(86) lombdi ata he

‘wolf’ ‘comes’ PNG

Wolf coms

In Hindi lombdi is always referred to in femenine gender.

This sentence would actually be

(86)a. lomdi ati he

‘wolf’ ‘comes’ PNG

Wolf comes

(87) pappi didi hamari badi thi

‘pappi’ ‘sister’ ‘our’s’ ‘big’ ‘was’

pappi sister, our’s was big

In this sentence the child was referring to the paper aeroplane that was made for him. In Hindi aeroplane is referred in masculine gender. So the sentence would be.

(87)a Pappi didi hamara bada tha

‘pappi’ ‘sister’ ‘our’s’ ‘big’ ‘was’ PNG

pappi sister our’s was big

(a) All the children show occasional deviacies in the choice oruse of the post positional phrae.

(88) Car tarikh me antizi a rahe he

‘four’ ‘data’ in’ (loc) ‘aunty’ ‘coming’ is’

In the fourth aunty is coming

The choice of the PP me (loc) is deviant

The appropriate PP would be ko

(88)a. car tarikh ko antizi a rahe he

‘four’ ‘date’ (dat) ‘aunty’ ‘coming’ ‘is’

On the fourth aunty is coming

(89) nanizi ki ghar me

‘grand mothers’ ‘house’ ‘in’

in grandmother house

The PP ki is not the acdeptable.

(89)a. nanizi ke ghar me

‘grand; ‘mother’s’ ‘house’ ‘in’

In grand mother’s house.

The (89)a. form of the sentence is more appropriate

Deviancies found only in 4 year old children.

4.3.2 Some kinds of deviancies are found only in the four year old children and not in five year old children. These deviancies include deletion of some elements of sentences, use of verb form, and noun.

Both the four year old children deleted in some sentences.

(90) zab cutti hoti ghar zate he

‘when’ ‘leave’ ‘begins’ ‘home’ ‘go’ PNG

When they leave (us) we go home

In this sentence the constituents (he and tab are deleted. Inclusion of these would make the sentence syntactically appropriate.

(90)a. zab cutti hoti he tab ghar zate he

‘when’ ‘leave’ ‘starts’ ‘then ‘home’ ‘go’ PNG

When leave starts then we go home.

Some deviancies in the use of verb forms are also seen in four year old children. Thisis noticeable especially in sentences with causative verbs.

(a) One child used causative verb when it is not necessary.

(91) mis likhvati he to likhte he

‘miss’ ‘causes’ ‘write’ ‘then’ ‘write’ PNG

Miss makes us to write then we write

With reference to the context this contructions is in-appropriate. The appropriate form is

(91)a. mis likhati he to likhte he

‘miss’ ‘makes ‘us’ ‘write’ ‘then’ ‘we ‘ ‘write’

If miss makes us write then we write

(b) The other child intended to use the causative verb but did not use it.

(92) ata pisana he kya?

‘flour’ ‘to be’ ‘ground’ ‘is’ ‘what’?

Flour is to be got ground what?

The sentence with the appropriate causative constructions would be

(92)a. ata pisana he kya?

‘flour’ ‘ to be got ground’ ‘is’ ‘what’

The flour has to be got ground what?

4.3.3 Some Idiosyscrative deviancies:

There are some of the deviant features that were peculiar in the speech of the children.

(A) Amreesh - Age 4 years.

(a) Noun The noun kargos meaning rabbit was

consistently referred to as zokar. His parents were not able to give any reasons for this substitution. Soon after correcting him he started using the correct word kargos.

(B) Surbhi – Age 4 years.

(a) Noun In one sentence she refers to an English word as a Hindi word.

(93) hindi me spun bolte he isko

‘Hindi’ ‘in’ ‘spoon’ ‘said’ ‘this to’

This is called spoon in Hindi

In Hindi the word for spoon is camae.

(b) Coordination

A improper coordinate is used occasionally to conjoin sentences.

(94) me to khati nahi isliye papa kah rahe the

‘I’ ‘eat’ ‘not’ ‘thatsway’ ‘father’ ‘saying’ ‘was’

I do not eat thatsway father was saying.

mirci nahi kana bacco ko

‘chilli’ ‘not’ ‘eat’ ‘children’

children should not eat chilli.

She meant to say that I do not eat because father was saying that children should not eat chillies. She has used isliye (that's why) instead of Kyoki (because as a coordinator. In adult speech this sentence would be.

(94)a. me to nahi kati kyoki papa kah rahe the

'I' 'not' 'eat' 'because' 'father' 'saying' 'was'

I do not eat because father was saying

ki bacco ko mirci nahi khani cahiye

'that' children' 'chillies' 'not' 'eat' 'should'

that children should not eat chillies.

(c) Apart from the improper coordinator, in sentence 94, the gender agreement between noun 'michi' and verb 'khana' is not maintained. An element ki (that) is after the phrase 'papa kah rahe the.

(d) Another deviant sentence in the speech sample is

(95) Ye ghar pe nahi he?

'this''home' 'at' 'not' 'is'?

This is not at home?

She means: In this not home?

(95)a. kya ye ghar nahi he?

‘what’ ‘this’ ‘home’ ‘not’ ‘is’?

What is this not home?

The 95(a) is be the appropriate form of the sentence.

(c) Rajneesh – Age 5 years

(96) Khana khate ho ki nahi khate

‘food’ ‘eat’ ‘do’ ‘or’ ‘not’ ‘eat’

Do you eat food or don’t you?

(97) helmet pahante ho ki nahi pahante?

‘Helmet’ ‘wear’ ‘do’ ‘or’ ‘not’ ‘wear’

Do you wear helmet or don’t you wear?

Such sentences are consistent in his speech. Similar constructions are used by adults, but the final verb is deleted by them. In adults we have.

(97)a. kana kate ho ki nahi?

‘food’ ‘eat’ ‘do’ ‘or’ ‘no’

Do you eat food or not?

(D) Sarika - Age five years.

(a) Number:- In Hindi, like in English some words do not have an plural number. Eg. in English we have deer (sg) and the deer (pl). In Hindi, the sg and pl forms for some words like ped, buk etc., do not change their form to indicate plurality. Some other words have _e as the plural marker.

eg. becca baocce

‘child’ (sg) Children (Pl.)

She sometimes uses this general rules for words where the –e need not be added.

(98) pede dikh rahe he

‘trees’ ‘seen’ ‘are’

Trees are seen

The plural form for ped is pede and not pede as she uses.

(b) Sometimes the constituents are deleted leading to ungrammatical sentences.

(99) Mummi sal leli

‘Mummy ‘shawl’ ‘took’

Mummy took shawl

In this sentences the –ne has been deleted. This sentence if uttered by an adult would have the form.

(99)a Mummi ne sal leli

‘Mummy’ ‘shawl’ ‘took’

Mummy took shawl

(c) Imperative - She uses the form of the verb ana, sunana etc. in imperative sentences. This form of the verb is usally used in sentences where the actions that are beyond the present ie., the events that occur in the future.

This form she uses to indicate action in the wrong context. She says:

(100) abi ana

‘now’ ‘come’

come now

(100)a. instead of abhi ao

‘now’ ‘come

come now

In summary, in all the four children ambigious sentences are present in the speech sample. Gender agreement has yet to be completely stabilized. The ordering of words in some sentences does not resemble the word order in adult speech. The four year old children use deviant causative verb forms. Deletion of some constitutients in some sentences are seen. These make these sentences ungrammatical.

All the four children use deviant patterns that one not seen in the other children.

4.4 Comparison to Adult forms:

The basic sentence structure used by the children is similar to the adult sentence structure reported by Kachru (1968). At times the children place constituents after the verb which is not usually done in adult speech.

The children use the negative form nahi just the

way the adults use them. Difference between adults and the children exist in the use of word negatives like ‘bina’. The children never use these forms.

The 3 broad interrogative categories, yes no, wh types and tag questions are used by children in the same way as adults use them. Some exceptions to this rule include wh forms like kab, kesa, which are either used deviantly or not used at all. These forms may not have been acquired completely asyet. The observation that even the youngest child in this sample are using tag questions in the way adults use them is in contrast to the literature reported in this aspect. Magreth and Kunze (1973) reported that English speaking children may not acquire tag questions by the age of five.

All the children use both affirmative and negative imperative sentences. However some form of imperatives like 2nd person honorophic, 2nd person with future suffix ga like ‘bataye’ or ‘bateiyega’ are never used by these children. The verbal noun form eg. ‘ana’ is used by one five year old a few times, but all the sentences are deviant,

It is evident that the acquisition of imperative forms is not complete by the age of five.

The coordinate conjunctions used by the adults are used by the children. The major difference between the adults and the children is that the children retain as declarative sentences, some sentences that could be conjoined. The children have also not acquired the rule of inserting the or marker just before the last NP is a sentence with more than 2 NPs. The use of adversative and conjunctive coordinations are infrequent. whenever they are used, some sentence approximate adult forms while other s are deviant. These observations support the findings reported by Katz and Brent (1978), Neimark and stolmick (1970) Prema (1979) that coordinations acquisition may not be complete by the age of five.

Pronomilized sentence are rare in the speech of the four children. It is possible that pronomilization being a complex process may be acquired after the age of five. Chomsky (1969) has reported the acquisition of promili-zation may occur even after the age of five years.

Some other general observations were made regarding the naming of colours and the concept of time. It was noticed that the children use the names of different colours but are not able to match the colour with the name. The children comprehend and use words like ‘Subah’ (morning) and ‘sam’ (evening) correctly. However, when they have to refer to time in terms of hours and minutes they almost always camp up with some number. eg. ‘forti eit’ or ‘dobaze’. These are not appropriate with reference to the context of the question.

A superficial examination of a child’s speech may lead to the inference that by the age of five, the process of language acquisition is complete. An indepth analysis would not substantiate this claim. The results of this investigation support the reports of Chomsky (1969), Carpenter (1966), Olds (1968), Cromer (1968), Prema (1979) to name only a few, that syntacatic development continue beyond the age of five. More research in this area would be able to explain the subtle process that occur in the acquisition of language.

Chapter 5

SUMMARY AND CONCLUSIONS

Syntactic patterns in 4 and 5 year old Hindi speaking children were investigated in this study. Four children belonging to Hindi speaking middle class families residing in Mysore were selected. The age range of the children was from 4 years 1 month to 5 years 4 months.

Samples of spontaneous speech were collected from each child at his or her home. During each visit almost one hour of speech sample was recorded using a Sony cassette recorder.

In total about 3 hours of data per child were collected. Not more than 7 days elapsed between the first and the third recording.

Spontaneous speech was supplemented with story telling, describing picture books, describing view master slides, playing with toy animals etc, whenever it was thought necessary. The recorded speech sample were

transcribed in broad phonetic scription.

These transcribed sentences were then classified into the 4 major types of sentences (1) Declarative (2) Negative (3) Interrogative and (4) Imperative. Coordinated sentences and Pronomilized sentences were also extracted from the speech samples. These sentences were then subjected to analysis on the following lines.

a) Structure of the different types of sentences
b) Developmental trends among the structures under study.
c) Characteristics of the deviant sentences uttered by the child.
d) Comparison of the forms used by the child to the forms used by adults.

The following tentative conclusions could be drawn from the results of the study.

Sentence structure:

The basic sentence structure used by the children is similar to the sentence structure used by the adults. There is lack of agreement between Noun and Verb in some sentences. This indicates that noun verb agreement is yet to be stabilized. Sentences with causative verbs are deviant in four year old children.

Negation:

The children use the rule of inserting the negative marker ‘nahi is the preverbal position in a sentence. This is the rule used by adults too. Word negations are not present in the obtained speech samples.

Interrogation:

The children use the three broad categories of Interrogative sentences, namely, Yes-no type, wh type and tag question. The transformational rules of deriving Interrogative sentences have been acquired by the children.

The wh form ‘kab (Q+ Adv_t), ‘kesa’ (Q + Adv_{des}) and ‘kidher’ (Q + $Adv_{direction}$) are not used by the four year old children. The five year old children use ‘kidhar’ consistenly though sentences with ‘kab’ and ‘kesa’ are devianat. These wh types may still be in the process of acquisition.

Imperative:

The children utter both affirmative and negative imperative sentences. In imperative sentences the children do not use the honorephic forms of the verb eg ‘ayiye’,

bethye. Such forms are present in adult speech.

The older children (5+ age group) used both ‘nahi’ and ‘mat’ as negative imperative markers, while the younger children (4+ age group) used only ‘nahi’ as the negative imperative marker.

Coordination:

The children conjoin NP’s with a pause or used the marker or. None of the children have yet stabilized the position of the or marker in sentences with more than two NP’s. To this extent the adult rule has not been acquired. The VP coordinators are pause, or , orphir and ‘kar’.

Adversative and conjunctive coordinations are not used by all the children. There are also relatively rare in the speech of the children who used them. Some sentences with these coordinators are deviant.

Operations like identical verb deletion etc., are not always used by the children. Some sentences are not conjoined but uttered as simple declarative sentences.

Pronomilization and relexinization:

Pronomilized sentences and sentences with reflexiveverbs were by

few in number. As there are very fewexamples, no generalizations are made.

Developemental trends:

The 5 year old children use almost all the structures used by the 4 year old children. In addition they use structures like 'kab' 'kesa' 'kidhar' and negative imperative 'mat' that the 4 year old children do not use. This could indicate some developmental trends.

Sex differences:

Differences between males and females in each age group are evident only in structures that are used relatively rarely by the children. Eg.conjunctive and Adversative coordination. Therefore drawing inference for sex differences is difficult.

The results of this study support the contention of Chomsky (1969) that by the age of five, a child is not linguistically an adult.

language.

Recommendation for future study:

1. The language structure of Hindi speaking children living in an Hindi speaking area could be compared to the language structure of these children. This would highlight the effect of an bilingual environment on language acquisition if any.

2. A longitudival study starting from the age of one onwards, would give insight into the stages of acquisition of language.

3. Such studies can be used as a base to construct tests of syntax.

4. Such studies in different languages could be done.

5. Syntactic structures in dyslexics, clutterer, and other structure in
   normal children. These would help in both in the diagnosis and therapy for such disorders.

6. The language structures used in 1st standard text
   book can be compared to the language used by children around the age of 5. This would make it possible for us to evaluate if the text book are matched to the linguistic ability of the children entering the school.

7. Studies in other aspects of language like acquisition of colour, time concepts could be done.

BIBLIOGRAPHY

Arder,G; On the development of coordination in child language. J. Verb Learn Verb BEhav, 18, 745-756, 1979.

Bloom, L., Language development: Form and Function in emerging grammer Research Monograph No. 59, Cambridge, MIT Press, 1970.

Braine, M.D.S: The Ontogeny of English Phrase Structures: The First Phare, Language, 39, 1-3, 1963.

Braine, M.D.S., On two types of Models of Internalization of Grammars in D.I. Solbin (Ed.), The Ontogenisis of Grammar. New-York, Academic Press, 1971.

Brown, R., and Bellugi, V., Three Processes in the Child's Acquisition of Syntax in B. Helnnoben (Ed.), New directions, in the study of Language.Cambridge, MIT Press, 1964.

Brown R., The Development of Wh-Questions in Child Speech. J.Verb Learn Verb Behav., 7, 279-290, 1968.

Brown, R., & Hanlon, C: DerivationalComplexity and Order of Acquisition inChild Speech. In Congintion and Development of Language, by Hayes, J.R. (Ed.),New York John Wiley and Sons, 1970.

Brown, R, Cazden, C., & Bellugi, V: The Child's grammar from I to III in studies of Child Language Development by Freguson, C.A., & Solbin, D.I.(Ed) USA Halt, Rinehat and Winston, INC ., 1973.

Cairs, H.S. & Hsu, J.R. Who, why, when and How: A developemtenal study: J. Child Lang. 5. 477-488, 1978.

Carpenter, C.L: Patterns of Language used by K. G. Children Volta Review, 68, 474-578, 1966.

Chapman, R.S. and Miller, J.F: Word Order in early two and three word utterances: Does Production Precede Comprehension? J. Speech Hear Res., 18, 355-371, 1975.

Chomsky, C.: The acquisition of syntax in children from 5-10, Research Monograph No 57, MIP Press, Cambridge, 1969

Chomsky, N: Synatctic Structures, The Hague, Mouten, 1957.

Chomsky, N: Aspects of theory of syntax, MIT Press, Cambridge, 1965.

Clark, H.H. & Havilland, S.E: Psychological Process as Linguistic Explantiaon. In Cohen, D., (Ed) Explaining Linguisitc Phenomena, Washington, Memisphere, 1974.

Cromer, R.F: Structural Clues for the recovery of a deep structure. Brit. J.Psycol., 61 397-408, 1970.

Curtise, S.,: Genie, A Psycholinguistic study of a Modern day wild child, New York, associated Press, 1977.

Dale, P.S: Language development, Hinodale Dryden Press, 1972.

de Villiers, J.G: & de Villiers, P.A: Language acquisition Cambridge Howard University Press, 1978

Erwin-Tripp, S: Discourse agreement: How children answer questions, in Gogintion and the development of language by Hayes, J.R. (Ed) New York, John Wiley & Sons, 1970

Fowler, R: An introduction to transformational Syntak. Routledge and Kegan Paul, London , 1971.

Ingram, D: The development of phrase structure rulesin language learning. J.appl. Linguist. Vol. 22, -1972.

Jacobs, R.A. & Rosenbaum, P.S: English transformational grammar. Blasidell, London, 1968.

Kachru,Y: An introduction to Hindi syntax. Department of linguistics, Uniersity of Illinois, 1966.

Kachru, Y: Aspects of Hindi grammar, Manoher, New Delhi, 1980

Karmiloff-Smith, A: Language development after five in P. Fletcher and M.Garman (Eds) Language acquisition, Cambridge University Press, 1979

Katz. E.W& Brent, S.B: Understanding Lonnectives. J.Verb Learn Verb. Behav. 7, 501-509, 1968.

Kirk, S.A.: Mccarthy J.J. and Krik W.D. Illinois test of Psycholinguistic abilities. Urbana Univrsity Illnois Press 1969.

Klima, E.S. & Bellugi, V: Syntactic regularities in the speech of children in studies of child language development by Ferguson, C.A & Slbbin, D.I (Eds), Holt Kinehart & Winsten, INC, USA, 1973.

Kumudavalli, S: Relationship between articulation and discrimination of discriminiation of distinctive features. M.Sc., Dissertation, University of Mysore, 1973.

Lee, L.L: Developmental Sentence types. A method for comparing normal & deviant syntactical development in children’s language. J. Speech Hear. Dis. 31, 311-330, 1966.

Liles, B.L. An introduction to transformation grammar, New Jersey, Prentice Hall, 1971.

Liles B.L, Shulman M.D., Barlett S.; Judgements of grammar ticality by normal & language disordered children. J. Speech Hear, Dis. 42, 199-209,1977.

Macarthy, D: Language development in children in Carmicheal Manual of child psychology, New York, Wiley Press, 1930.

Macaulay, R.K.S: The Myth of female superiority in language acquisition. J. Child. Lang., 5, 353-363, 1978

McKarth, C.O and Kunze L.H: Development of Phrase structure rules involved in tag questions elicited from children. J.Speech Hear. Res. 16, 498-512,1973.

Mc Neill, D: The acquisition of language. The study of developmental psycholinguistics, New York, Harper & Row, 1970.

Menyuk, P: Syntactic Structures in the language of chidren. Child develop, 34, 407-422, 1963.

Menyuk, P: Syntactic ruleused by children from preschool through first grade. Child develom, 35, 533-546, 1964.

Menyuk, P: The role of distinctive features in Children's acquisition of phonology.J. Speech, Hear. Res. 11, 139-146, 1968.

Menyk, P: Sentence Children use, Research Monograph No. 52 MIT Press, Cambridge 1969.

Menyuk, P: The acquisition and development of language, New Jersey, Prentill Hall, 1971.

Miller, J.F., and Erwin, S: The development of grammar in child language in ed. Bellugu U and Brown R (eds) Monographs of the society for research in child development, 29, 9-34, 1964.

Morehead, D.N., and Ingram, D,: The development of base sytax in normal and linguistically deviant children. J. Speech Hear. Res. 16, 330-345, 1973.

Naremore, R.C., : Influences of Hearing Impairment on early language development. Annals of Rhinol elarngol, otol 88, Supp 60 54-63, 1979.

Neimark, E.D. & Slotnick, N.S: Development and Understanding of Logical connectives, S.Educat. Psychol. 61,451-460, 1971.

O’Dennel, R.C; Grijjin, W.J. and Norris R.C.: Cited in Prema, K.S.: Some aspects of Syntax in 5-6 year old children, A descriptive study in Kannada, Msc, Dissertation, University of Mysore, 1979

Palermo, D.S. and Molfese, D.L: Langugae acquisition from age five onwards. Psychol. Bull. 78, 409-428, 1972.

Park, T: Some facts on negation: Wode’s four stage developemental theory of negation revisited. J.Ch. Larg. 6, 147-151, 1979

Power, D.J., and Quingley, S.P: Deaf Children’s acquisition of Passive Voice, J.Speech, Hear. Res. 19, 336-350, 1976.

Prema K.S. Some aspects of syntax in 5-6 year old children, A descriptive study in Kannada, M.Sc., dissertation, University of Mysore, 1979.

Quigley, S.P., Wilber, R.B., and Montanelli, D.S.: question formation in the language of deaf students, J. Speech, Hear. Res. 17, 699-713, 1974.

Quigley, S.P; Steinkamp, M.W., Power, D.J., and Jone B.W., Test of Syntactic abilities: A guide to administration and Interpretation, Oregon, Dormac, 1978.

Rajaram, S.: Tag questions in Tamil, Indian Linguist, 35, 260-264, 1974.

Russel. W.K; Quingley, S.P. and Power, D.J.: Linguistics and Deaf children, The lexander Graham Bell Association for the deaf INC. 1976.

Shipley, E.F: Smith C.S. and Gleitman, L.R., : A Study in the acquisition of Language: Free response to commonds. Language 45, 322-342, 1969.

Singh, I: Some aspects of Hindi Negation in (ed) H.S. Billgiri Papers and Talks, Mysore CIIL, 36-42, 1971,

Smith: (1933) cited in Prema K.S.: Some aspects of syntax in 5-6 year old children; A descriptive study in Kannada, M.Sc., Dissertation, University of Mysore, 1979.

Sreedevi, S.V: Aspects of acquisition of Kannada by 2+ year old children, MSc., Dissertation, University of Mysore, 1976.

Srivatsava, G.P: A child’s acquisition of Hindi consonents. Indian Linguist, 35, 112-118, 1974.

Steinkamp, M.W; and Qigley, S.P; Assessing deaf children written language. Volta Review, 79, 10-18, 1977.

Subramanyaiah, M.G: Development of Some Morphological categories in Kannada; A study of children 6-8 years age range. M.Sc., Dissertation University of Mysore, 1978

Tasneem Banu, T: Articulatory acquisition in Kannada; A study of children 6-8 age range 3-6 6 years, M.sc., Dissertation, University of Mysore, 1977.

Thirumalai, M.S: Some aspects of four+ year old stage in the acquisition of Tamil phonology, J. All India Inst. Speech Hear. 3, 64-67, 1972.

Tiger R.J. Irvine T.L. Reis R.P. Cluttering as a complex of learning disabilities. Lang. Speech Hear. Serv, Sch. 11, 3-14, 1980,

Tyack, D; and Ingram, D: Childrens Production and Comprehension of questions. J.Ch. lang. 4,211-224, 1977.

Vijaylaxmi, B: Personal Communication, 1980

Vogel, S.A: Morphological ability in normal and dyslexic children S. Learn S. learn Disabl. 10, 35-43, 1977 (abstract)

Wilber, P.B. Quigley S.P. and Mart anelli, D.S: Conjoined Structures in the language of deaf students. J.Speech Hear. Res. 18, 319-335, 1975

Wode, H: Four early stages in the development of negation, J.Ch. Lang. 4,87-102, 1977.

APPENDIX

APPENDIX I

Symbols

--→	=	Rewritten as
:	=	Surffixes, choose one from list
:		
=====➔	=	Transformed into
Ø	=	Zero
+	=	Incorported with
( )	=	Enclsoed constituent is optional

APPENDIX II

Abbreviations

S	=	Sentence
NP	=	Noun Phrase
PDP	=	Predicate Phrase
VP	=	Verb Phrase
N	=	Noun
V	=	Verb
Aux	=	Auxillary
Det	=	Determines
Def	=	Definate
Indy	=	Indefinate
Demon	=	Demonstrative
Demon Prox	=	Demonstrative Proximate
Demon Rem	=	Demonstrative Remote
Gen	=	Genitive
Num	=	Numeral
Adj	=	Adjective
Adj Des	=	Adjective Descriptive
Adv	=	Adverb
Adv_T	=	Adverb Time
Adv_P	=	Adverb place

Adv_M	=	Adverb manner
P Prase	=	Post Positional Phrase
PNG	=	Person Number Gender
Asp	=	Aspect
Tense	=	Tense
Acc	=	Accusative
Dat	=	Dative
Inst	=	Instrumental
Abl	=	Ablative
Soc	=	Sociative
Loc	=	Locative
Imp	=	Imperative
Neg	=	Negative
K	=	Interrogative
Subj	=	Subject
Obj	=	Object
hon	=	honorific
P.S. Rules	=	Phrase structure rules
T- Rules	=	Transformational rules
Q Wh	=	Interrogative word
T	=	Tense marker
Pro	=	Pronoun